

# ATHLETIC JOURNAL

Vol. XVIII, No. 9

May, 1938



Training for the Pole Vault  
Dean Cromwell

Pitching Fundamentals for  
the Schoolboy  
J. E. Gargan

The Play of the Infield  
Jack Sheehan

Observing Hurdle Clearance  
Dan Kinsey

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### 3. INSERTING THE BOLT

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### 4. PLACING THE WASHER

Step (4) shows the washer in place. The notched center hole of the washer engages the bolt flutings and the four teeth around the rim engage the sole. This provides additional insurance against the bolt turning.

### 5. RIVETING THE ATTACHMENT

Step (5) illustrates the riveting operation. The fluted position of the bolt shaft that protrudes above the washer is riveted down over the washer under 2200 lbs. pressure. This pressure compresses the parts into practically one unit.



STEEL PLATES



THE BOLT



THE WASHER

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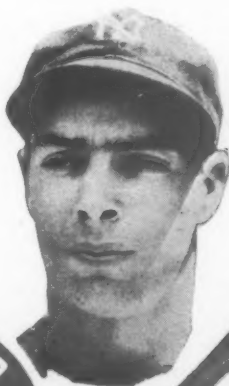
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# Track & Field



**T**HIS article completes the series of track and field studies begun in the February issue and continued in the March and April issues. The Editor again wishes to express his gratitude to the many track coaches who have so willingly co-operated to make the articles interesting and valuable to track athletes and coaches. Many readers have expressed their appreciation of these studies.

## Training for the Pole Vault

By Dean Cromwell

University of Southern California

**P**OLE vaulting probably requires more athletic talent than does any other event. A good vaulter must have agility, co-ordination, speed and gymnastic ability. Vaulting is closely allied with gymnastics for training in advance of the track and field season. In fact, gymnastics are essential in obtaining the necessary conditioning that will build up every part of the body. The co-ordination and timing that come from gymnasium work are invaluable in vaulting.

Good vaulters must be muscular for the pull-up, swing and thrust over the bar but they must not be too heavy; the best performers in this event are usually the tall, slender, willowy type of athletes. Short men are ordinarily at a disadvantage because of their lack of reach, although I have seen short athletes who have arrived at great heights. The best performer of his size, in my opinion, was Lee Barnes, who won an Olympic championship and

held the world's record for a time at 14 feet 11½ inches; Lee's form had to be perfection itself to counteract his short reach.

In general conditioning for the pole vault, the athlete must build up his endurance to be able to stand the many runs down the runway. Therefore, he should do much jogging. Wind sprints, in which the athlete walks, jogs, runs, sprints and repeats this process many times, are very good. It is often helpful for the vaulter to carry the pole on these jaunts because he must learn to run facing forward while he carries the big bamboo stick at his side.

So that an athlete may hold a bamboo pole when it is jammed sharply into the box and when his upward flight in the air is started, unusual strength is required in his hands, wrists, arms, shoulders, back and chest. Therefore, there must be a definite building-up program for the upper body. Gymnasium work is such a necessary part of this that many champion vaulters turn out to be outstanding performers on gymnasium apparatus. The apparatus used should include the horizontal bar, parallel bars, rings, rope climb and mats. The simpler exercises of tumbling should be tried because of their value in creating a sense of balance. Before any vaulting is done in the spring, there should

be an entire season's work in the gymnasium, and during the competitive months vaulters should continue to do apparatus work.

As a preliminary even before jogging, running and wind-sprinting, in the summer such sports as tennis, golf, volleyball, handball, basketball and hiking are good conditioners. However, competitive games that are too severe have a tendency to tie up muscles and good judgment must be used in the choice of summer sports.

If the vaulter does enough work on the rope climb and enough exercises on the bars and rings, it is not necessary to do special work on the grip. But if he does not devote a great amount of time to this type of training, he should use a spring-grip or some kind of soft ball on which to exercise the gripping muscles of his hands. Standing or walking on the hands will be found beneficial.

Bill Sefton, who with his team mate, Earle Meadows, raised the world's pole vault record to 14 feet 11 inches last year, developed his body so well by gymnastics that vaulting came easy to him when he took it up in his junior year in high school. At the age of twelve, Bill was so frail and under weight that the Sefton family doctor advised gymnasium work as a means



of building up his body and Bill's father had some apparatus erected in the backyard on which the boy worked daily. Bill tried indoor vaulting in his third year at Los Angeles Polytechnic High School not because he was interested in vaulting but because he considered it another form of gymnasium work. His coach, Eddie Leahy, encouraged him to go out for the pole vault in track, and although Bill eventually won international fame with his vaulting, his gymnasium workouts are still his first love and he continues to enjoy apparatus work.

Earle Meadows had little regard for training in the gymnasium, when we tried to get him interested in this at Southern California. Sefton worked with him as a gymnasium pupil and saw that he got plenty of the type of exercises that we wanted him to have. The two boys spent many hours working together in the Trojan gymnasium and even during the track season they did not spend a great deal of time on the track or at the vaulting pits. I think that an important reason for their success is that track and gymnasium training for their event were spaced so that they came up to their meets at peak form in endurance, general body strength and co-ordination.

**George Varoff**  
By **W. L. Hayward**  
*University of Oregon*

George Varoff, who won second in the 1937 N.C.A.A. Meet, is a junior at the University of Oregon. He graduated from Balboa High School in San Francisco, where he held the California interscholastic record of 13 feet 4 inches. He stands 6 feet 2 inches and weighs 170 pounds. He is of Russian descent and was born in the Hawaiian Islands.

I believe that Varoff was the originator of the so-called modern pole vaulting. He was the first to begin vaulting with a high hold; at least, I have been told so by other vaulters who are the same height as Varoff and who have not been holding the pole at the full height of which they are capable. I think that this is the main reason why so many vaulters are climbing up over the 14-foot mark.

George was not endowed with a great deal of speed when he first came here, and through suggestions he began to work on this particular point. As he gained speed, he found that he also gained height. He is a very easy man with whom to work but like all good field men is very temperamental, and at times is very, very nervous, sometimes to the extent of his nervousness affecting his performance. This he is gradually overcoming.

For his early season training he does a great amount of indoor work on the horizontal bars, parallel bars, rings, etc., to develop the muscles in his arms, back, shoulders and abdomen, and, in addition,

special exercises for the flexion of his hip muscles. During the early spring season there is a great deal of indoor vaulting on a very small dirt area. In the spring of the year his vaulting consists of considerable vaulting without the crossbar. The reason for this is mainly to get his feet higher or closer to the pole on the up-swing. With these exercises he does hurdling, sprinting and high jumping, not with the idea of making the team in these events but as a means of helping him in the pole vault.

With all these exercises he has his own pet ideas of different exercises that he performs himself, such as walking on his hands, high kicking and tumbling.

He is very serious in his work and a very good trainer. Like all good athletes, he has several hobbies. He is musically inclined and plays the bass viol in the University orchestra.

So far this season, he has not done what I had hoped would be his best mark, but on account of our facilities and the difficulty that we have had in securing poles, I think that he has done exceedingly well. The season is early and I personally look for him to better his mark of last year.

## The Two-Mile Run

**I**N THE two-mile run, Gregory Rice of the University of Notre Dame set a new National Collegiate Meet record of 9 minutes 14 seconds. The write-up of Rice by his coach, John P. Nicholson, appeared in the February 1938 issue of this publication in the article on Training for the Mile Run.

**Richard D. Frey**  
By **Lauren P. Brown, Michigan State**

Richard D. Frey, who placed third in the National Collegiate two-mile run last June, is a comparatively small runner; he is 5 feet 8 inches tall, and weighs 120 pounds. Frey is very conscientious in attendance at practice and in attention to details and is of the type that may easily be over-worked. As a freshman, he won the I.C.A.A.A. freshman cross-country championship at Van Cortlandt Park in New York. The outdoor track season of 1937 was his first period of varsity competition. Frey has a very well-developed sense of pace and is a serious student of running.

Frey's dietary habits are relatively simple. He believes that good home cooking similar to that which he found has agreed with him over a period of years is the logical diet. Of course he avoids pie, pork and fried foods in restaurants because these are almost invariably made with synthetic fats and are therefore apt to cause digestive disturbances. Frey believes in a well-rounded sports program. Out of track season, he plays tennis, volleyball, basketball, football, pitches horseshoes, ice skates or

swims, depending upon the season.

As for accomplishments, Frey has confined most of his athletic competition to distances above the mile. As a freshman, he ran the final 5000 meters in the 1936 Olympic try-outs at Randalls Island in 15 minutes 32 seconds. Previous to coming to Michigan State, he was the Niagara district cross-country champion for four consecutive years and the mile champion for three consecutive years. He is the record holder in both of these events in his district. Since coming to Michigan State, Frey has been running shorter distances, primarily to increase his speed. At this writing his best times outdoors are as follows: 880-yard run in 1:57.8, the mile in 4:19.1, the two mile in 9:18.7 in the National Collegiate, 9:19 in the Central Intercollegiate and for the 5000 meters 15:32. In 1937 he was the individual winner of the one-mile team race at the Texas Relays. Frey's best indoor times to date are 15:35 for the 5000 meters, 9:34 for the two mile, 4:33.3 for the mile on a 16-lap cinder track and 4:26.5 on a 10-lap cinder track (placing third behind Cunningham and Sam Romani in an exhibition race at the Butler Relays last winter).

Frey's training program, after the season is well advanced, is limited to three days. On Monday, he usually runs over-distance. On Tuesday, he has speed work. On Wednesday, the work will vary, sometimes being spread over three-fourths of his competitive distance and at other times being devoted to short pace work.

**Fred Padgett and William Feiler**  
By **Franklin P. Johnson**  
*Drake University*

Captain Fred Padgett and William Feiler, fifth and second place winners, respectively, in the two-mile run in the 1937 N.C.A.A. Meet, are distance runners because of natural physical ability, a willingness to work hard at distance running and a desire to place athletic accomplishment above almost everything except scholarship. Both boys are natural competitors, and have a natural running style on which no changes or modifications have been attempted. After they learned the importance of pace, they developed as any distance runner might be expected to develop.

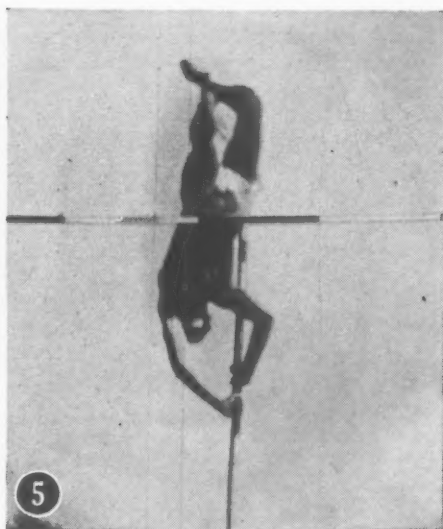
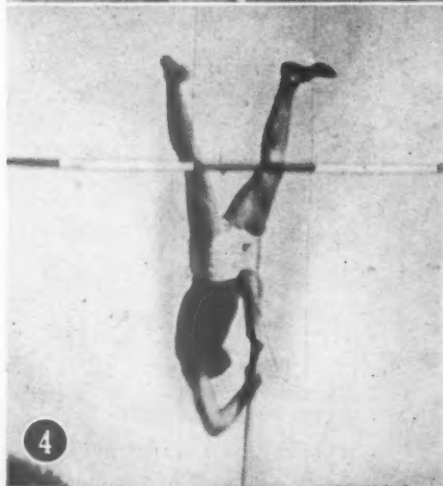
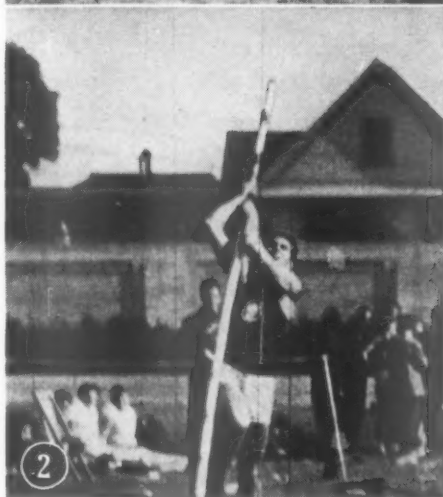
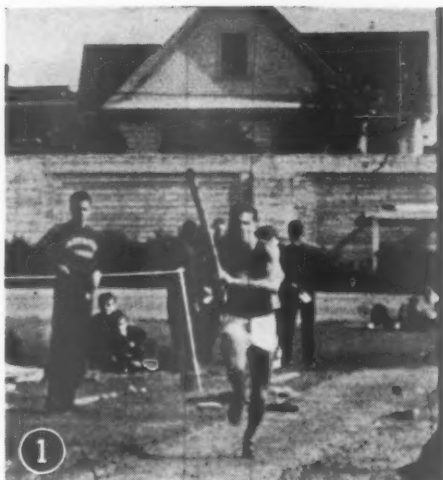
Feiler, at 126 pounds, is stronger than Padgett, 119 pounds, and in running 9:16 last year showed considerable promise. Padgett, a junior in 1937, should improve further on his best mark of 9:25.

## The Low Hurdles

**Bob Lemen**  
By **Hermon Phillips, Purdue University**

Bob Lemen, who was a 220-yard dash man in high school, had not had much ex-





*Bill Sefton, University of Southern California pole vaulter, winning the 1937 N.C.A.A. pole vault with a height of 14 feet 8<sup>7</sup>/<sub>8</sub> inches*

Illustration 1—Bill Sefton shows the perfect running form on the runway, with his body facing straight forward and the pole being carried at the side.

Illustration 2—As he places the pole in the take-off box, he brings his lower (left) hand up to his upper one on the pole. He is also in the act of bringing the pole straight in front of his face.

Illustration 3—As the momentum of the run swings the pole up to the bar, Sefton advances his body past the pole and rides with it, getting all that he can out of the pole's swing.

Illustration 4—As the pole reaches an upright position, Sefton drives his body up straight.

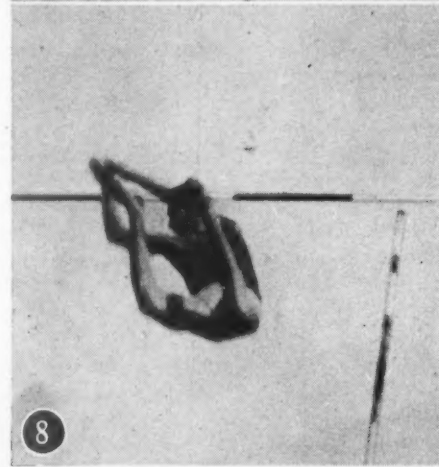
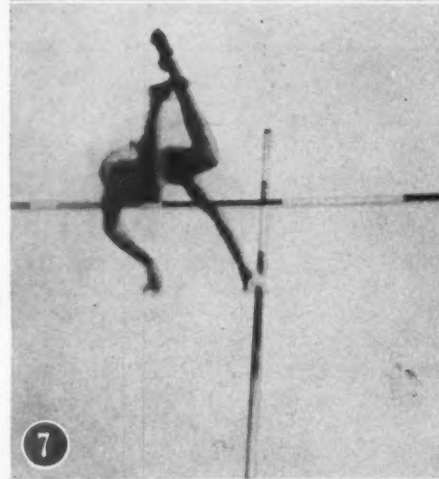
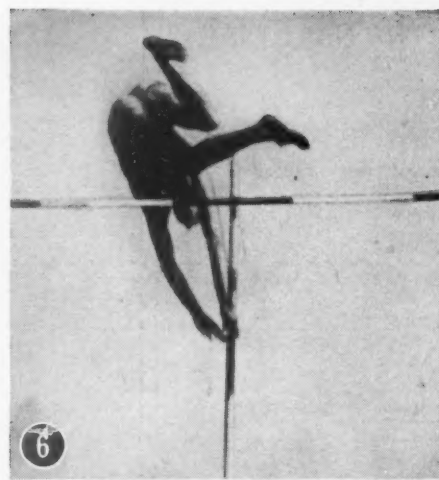
Illustration 5—This illustration shows a continuation of the last movement. Sefton is now standing on his hands on the pole and is ready for the arch of his body at the top of the vault.

Illustration 6—He is arching his body over the pole as his legs start to drop.

Illustration 7—In this illustration he has just thrust the pole away and is throwing his hands over his head in a swift movement to avoid hitting the crossbar.

Illustration 8—This illustration shows how he has jerked his arms away and is relaxing for the fall into the pit.

Illustration 9—He is ready for the "two-point" landing. Sefton falls at an angle so that he will not take all the weight of the fall on his legs. He will roll so as to take part of the fall on his shoulders when he hits the pit.



# THE NATIONAL COLLEGIATE ATHLETIC ASSOCIATION MEET JUNE 19, 1937, BERKELEY, CAL.

Event	Time or Distance	First Place	Second Place	Third Place	Fourth Place	Fifth Place	220-Yard Dash	21.3s	Johnson Columbia	Weierhauser Stanford	Orr Wash St.	Ledford Wash St.	Elliott Ind.
Mile Run	4:13.9	Fenske Wis.	Smith Ind.	Trutt Ind.	Rice Notre Dame	Rogan Ky.	Broad Jump	25 ft. 3 1/4 in.	King Kans. Tech. (Pitt.)	Nutting Calif.	Peacock Temple	Hubbard Minn.	Boone U. S. C.
Shot Put	53 ft. 5 in.	Francis Nebr.	Zaita Boston Coll.	Reynolds Stanford	Watson Mich.	Taylor Columbia	Discus	156 ft. 3 in.	Zagar Stanford	Gribben Stanford	Socofsky Kans. St.	Gaspar U. S. C.	Johnson Idaho
440-Yard Run	47.1s	Benke Wash. St.	Malott Stanford	Howells Ohio St.	Belcher Ga. Tech.	Gill Boston Coll.	Two-Mile Run	9:14.2	Rice Notre Dame	Feller Drake	Frey Mich. St.	Deckard Ind.	Padget Drake
100-Yard Dash	9.7s	Stoller Mich.	Johnson Columbia	Dunn Kans. Tech. (Pitt.)	Boone U. S. C.	Grieve Ill.	High Jump	6 ft. 6 1/4 in.	Albritton Ohio St.	Cruter Colo.	Thurber U. S. C.	Walker Ohio St.	Burke Marquette Vickers Texas
High Hurdles	14.3s	Towns Ga.	Staley U. S. C.	Tolmich Wayne	Osgood Mich.	Sumner Kans. Tech. (Emporia)	Low Hurdles	23.3s	Vickery U. S. C.	Weierhauser Stanford	Sumner Kans. Tech. (Emporia)	Lee U. S. C.	Berkeley U. C. L. A.
Javelin	214 ft. 9 3/4 in.	Todd San Jose State	Reits U. C. L. A.	Johnson Idaho	Guckeyson Md.	Soper U. S. C.	Pole Vault	14 ft. 8 1/4 in.	Sefton U. S. C.	Varoff Ore.	Meadows U. S. C.	Howe U. S. C.	Haller Wis.
880-Yard Run	1:50.30	Woodruff Pitt.	Bush U. S. C.	Beetham Ohio St.	Palmason Wash.	Squire Ohio St.							

Note: Although six places counted in the National Collegiate Meet, limited space has made it possible to include only five. The coaches whose men placed in these five events contributed the articles appearing in the February, March, April and May issues.

perience in the hurdles before entering Purdue. Lemen had more or less trouble with his legs during his sophomore year and it was not until last year (his junior year) that his performances began to attract attention. In five dual meets Lemen finished first in all, with time no worse than 24.4 seconds in any of them. He was third in the 440-yard hurdles in the Drake Relays and won the Indiana State championship in the low hurdles in 24.4 seconds. He ran under 24 seconds four times during the season. He finished third in the Conference Meet and second in the Central Intercollegiate Meet.

Lemen runs a great deal of over-distance work for endurance and often ran the anchor quarter on the relay team. He also competed in the high jump and was a consistent six-foot jumper.

Tom Berkeley  
By Ben Person

Tom Berkeley, a sophomore in 1937, is a transfer from Fullerton, California, Junior College. He started slowly last season, placing second to Jack Weierhauser of Stanford in the low hurdles in a 24.1-second race; he placed third in the California Meet behind a slow winning time of 24.3 seconds; then defeated Captain Selwyn Hartigan of San Diego State College in 23.6 seconds, to set a new university record. He took first in the U. S. C. Meet ahead of Earl Vickery in 23.8 seconds and was second to Vickery in the Coast Conference and Big Ten-Coast Meets in approximately 23.6 seconds. In practice, Berkeley has done 23.2 seconds.

He has high jumped 6 feet 2 inches; broad jumped 23 feet 8 inches; run the 440 in 48.1 seconds and the high hurdles in 15 seconds. He has a tremendous "gather" during the last third of the low hurdles.

Berkeley finds that the harder he works, the better he performs.

## Working With High Jumpers

By Lawrence N. Snyder  
Ohio State University

IT IS impossible to give a clear picture in writing of the styles used by Melvin Walker and David Albritton. Both use modified versions of the Western roll. Walker, a graduate of Toledo's Libby High School, entered Ohio State as a scissors jumper with a mark of 6 feet 3 3/4 inches. Albritton, with a record of 6 feet 4 inches to his credit, made while at East Tech, Cleveland, was already proficient in the Horine style (stomach to the bar).

It was not until the end of his sophomore year that Walker felt confident enough of his ability in the roll jump to use it in competition. In the Southern California dual meet at Los Angeles, after

two years of practice, he took a couple of warm-up leaps with the roll. He did so well in it that he continued to use it in competition, clearing 6 feet 5 inches—the first time he had ever reached that height. He sprained his ankle that day and could not get over the bar at 6 feet in the National Collegiate Athletic Association Meet at Berkeley the following week. He has used the roll jump ever since.

These two boys, Albritton and Walker, have very little in common when their jumping style is compared except that they both take off with the left foot. Albritton comes in fast from a 45-degree angle. Walker almost walks up to the bar from a 30-degree angle. Albritton leaps; Walker swings up over the bar. Albritton, because of his speed, carries his top height almost a foot. Walker swings up, turns and slides down the other side of the bar, having a practically perfect peak in every jump. Strangely, it is Walker with his slow, measured take-off who has the greater trouble getting in close to the bar with his jumping foot. Albritton, to date, has not learned to use a measured run. We worked for weeks on this last year, and Albritton could not clear six feet when running into the bar smoothly. After a dozen attempts with measured stride, and a dozen failures to clear the bar, he would come back, start to run, cut his stride with choppy steps and then leap easily over the bar. Some of this work with the measured run had its effect, however, for in the final big meets in this country last season he approached the bar much more smoothly than he had formerly. At the Olympic Games he had lost the smooth approach and has not yet found it again.

### The Stimulus of Competition

During the summer months of 1937, Walker, a member of the American team touring the Scandinavian Countries,

## The Low Hurdles 1937 N.C.A.A. Meet

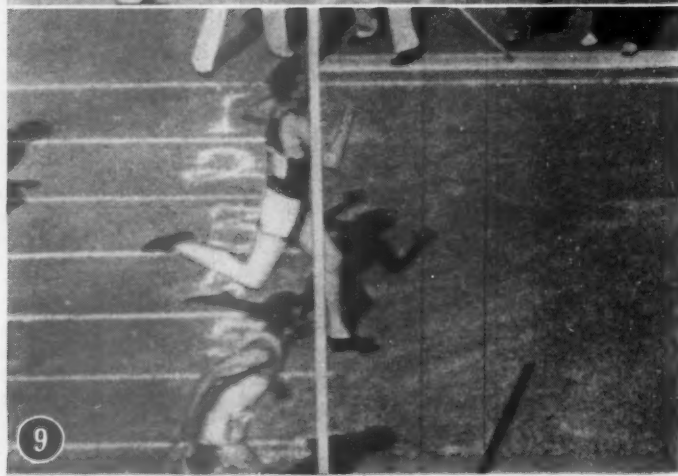
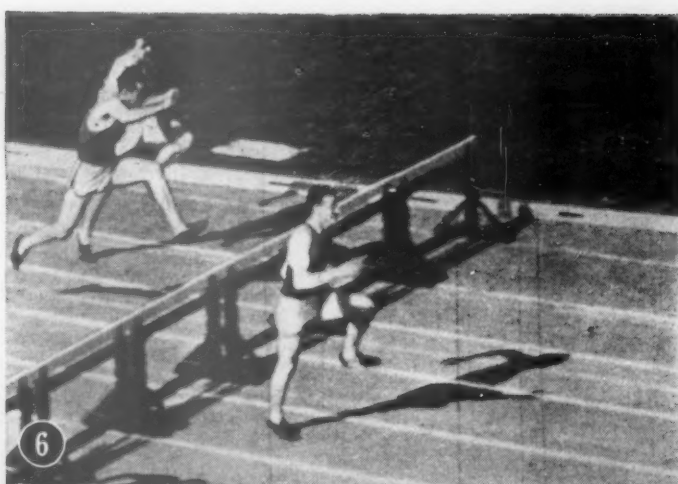
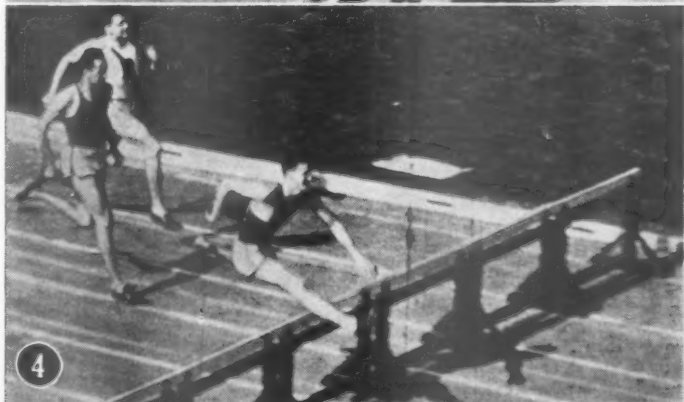
(See Illustrations on page 9)

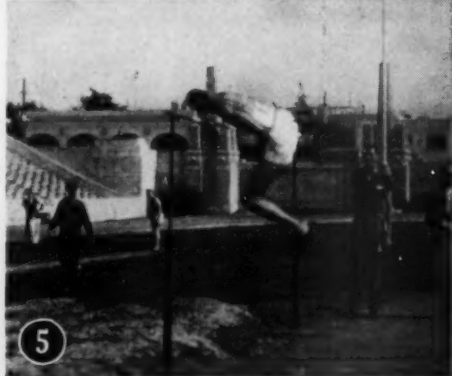
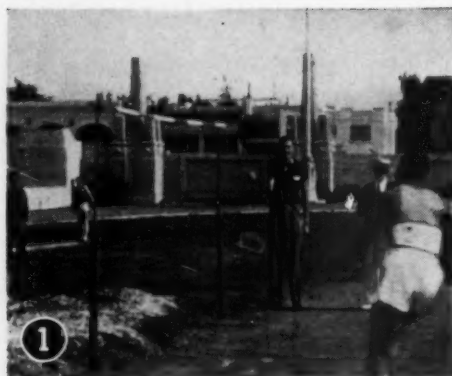
The illustrations on page 9 show a very good conservation of effort on the part of Vickery of Southern California in the low hurdles. He is using practically no unnecessary motion or effort and is obtaining a maximum result.

Illustration 3 shows him taking off rather far back from the hurdle and attaining good height before reaching the barrier.

Illustrations 5 and 6 show the cut down close to the hurdle. Vickery has reached the ground at a perfect running angle and is ready to continue to the next hurdle at full speed.







jumped higher than any one had ever jumped before. His mark of 2.09 meters (6:10+) was submitted too late for approval by the International Federation, but will probably be recognized at the next meeting.

In the meanwhile, Albritton will be doing his best to erase that mark. If I were exactly sure what a dilemma is, I would say that Dave and I are faced with one. It is this way. Dave jumped into a tie for the World mark with a style that carries him up to top height on his left side. Then he snapped into the face down position with sharp action of both arms and legs. Touring that summer (1936) in Sweden and Norway, he was called on to hurdle, broad jump and sprint in addition to high jumping. It was then that the straddle version of the roll crept in. It was easier to stride up and straddle the bar. He used less energy and since he never needed to go higher than 6:6 to win, he continued using that form. Most of last year we tried to get the old form back, but worked with measured stride. Dave insisted that he could not get the old form if I insisted on a measured approach. I was sure he would soon forget that, so I kept at him until he did learn to come into the bar smoothly. However, to this  
(Continued on page 44)

*Gilbert Cruter, Colorado, demonstrating his version of the Western, the "straddle" style.*

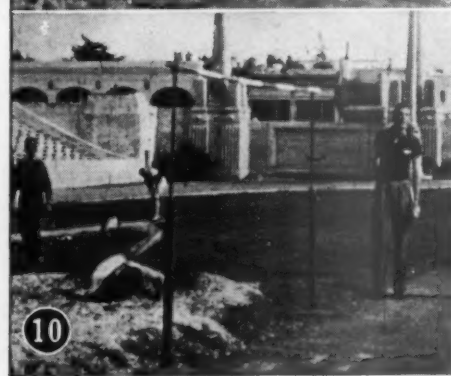
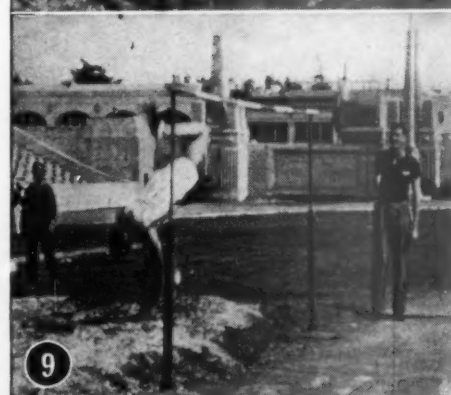
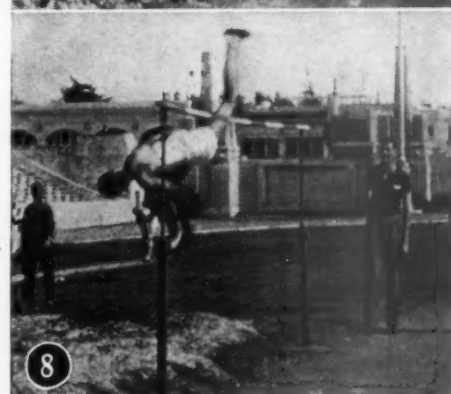
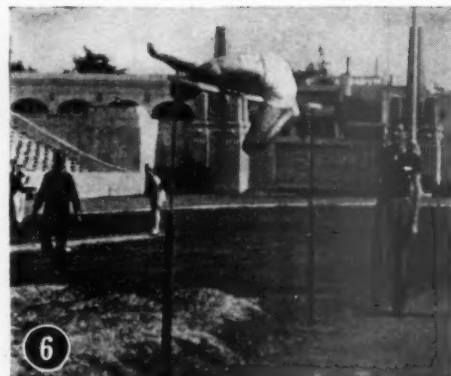
Illustration 3 shows a fine position. Everything is under control, arms and legs swinging into position.

Illustration 4 shows the loss of power. Instead of the center of gravity remaining directly above the jumping foot, the lunge toward the bar has destroyed this perfect take-off position. This is the position that Albritton gets when he comes in with measured approach.

Illustration 5 shows the rotation around the bar. His thighs are drawn up at right angles to the body; his right arm is reaching, left arm is coming back hard to assist the turn. Note that in this style the head leads to such an extent that the body is entirely out of alignment.

Illustration 7 shows Cruter starting the leg lift that is a beautiful and efficient feature of this style. The right arm from its high position is forced down hard to assist the left, jumping leg to kick straight up above the bar.

Illustration 8—The right leg continues downward for the landing, both hands being brought sharply down. Note that the landing is made with the right leg. This is contrary to orthodox Westerns, where the jumping leg is the first down into the pit.







The pitcher throwing to first base. Note that his feet are in line with the base as he starts the throw.

# Pitching

## Fundamentals for the Schoolboy

By J. E. Gargan

Kingswood School, West Hartford, Conn.

**I**N THE April issue, I mentioned five steps as fundamental in the development of a schoolboy pitcher. I discussed three of them—condition, stance and delivery. In this article I shall discuss control and fielding.

### 4. CONTROL

The successful schoolboy pitcher needs control, a fast ball and a curve. He may be successful if he has only control and a fast ball, or control and a curve, but he cannot be effective without control.

Although control depends to a large extent upon a boy's temperament and a natural ability, its development depends upon interest and conscientious practice. Even the boy possessing what appears to be poor control can improve greatly if he is convinced that it is possible to learn to make the ball behave and if he is willing to practice continuously.

In practicing to develop control, the young pitcher must learn to hold the ball correctly and must acquire the habit of adjusting it properly before stepping on the rubber. He must learn a good stance from which to deliver the ball with the bases unoccupied, and one to use when there are runners on bases. In practicing, he must deliver the ball from these stances and learn to feel equally at home with either.

He must learn a good, free delivery. Faulty action in the delivery that destroys the smoothness of arm action and follow-through, will impair control. Faults like snapping the arm, tightening the wrist, and poor footwork must be eliminated.

The overhand motion must be emphasized. I think that this is the most important item in the development of control. It is the natural way of aiming at a target in throwing. It enables the pitcher to maintain his balance easily during the delivery. It provides a good follow-through and causes less muscle strain than any other type of delivery.

The young pitcher must start to develop his control from the very first. The fol-

lowing is a routine that he might use. He should start indoor practice not later than March first. While learning good stance and delivery, he should work for control by endeavoring to make every ball a strike. He should team with another pitcher and one catcher and throw one-half hour each day, always working on his control with the development of his delivery. He should throw at about three-quarter speed for the first two weeks and then let out a little for the next two weeks, but should not throw at full speed during this period. Regulation-sized pitcher's and home plates should be provided. Pieces cut from an old rubber floor mat make good plates. If a line is drawn on the floor extending about five feet from the center of the pitcher's plate directly toward the home plate, it will help in the practice of stepping directly toward the plate with each pitch. The plates should be set at the regular pitching distance. The pitcher should vary his stance, using the normal pitching stance and the baserunner stances about equally. He should try to throw successive strikes from each stance.

If the catcher will call the strikes and a daily record is kept, perhaps posted, the incentive to compete with the other pitchers for the best total and to improve his own total will be sufficient to cause a young pitcher to work for improvement.

After two or three weeks of this, he should begin to pitch high and low, at-

tempting to get the ball across the plate knee-high and shoulder-high, never throwing it through the middle. By the end of the month he will have had two weeks or more of throwing good strikes and a week or more of throwing high and low, and should be ready for outdoor work. He must then throw outdoors for two weeks before using his curve in any practice game. He should, however, begin to practice his curve daily in his workouts for control, but should use it sparingly.

### Conditions Which Affect Control

The pitcher's control in a game may be affected by circumstances such as weather, wind, or condition of the pitcher's box and by his mental attitude. With a strong cross wind blowing, the pitcher will usually find it advisable to pitch from the windward end of the rubber. In any case, he must make allowance for the wind and often he will find it advisable to use his curve less than usual.

He should acquire the habit of using rosin during early season practice, and on a wet day or a very hot day should use the rosin bag frequently. It is a real aid to control at such times, and its psychological effect is good.

He should keep the holes in the box well filled. We have found it advisable to make the first baseman also responsible for this. Between innings he should help the pitcher smooth out the box, and often between pitches he should do this also. The pitcher's footwork is helped thus and the slight delay tends to slow him down if he is pitching too fast and allows him a breathing spell in the pinch.

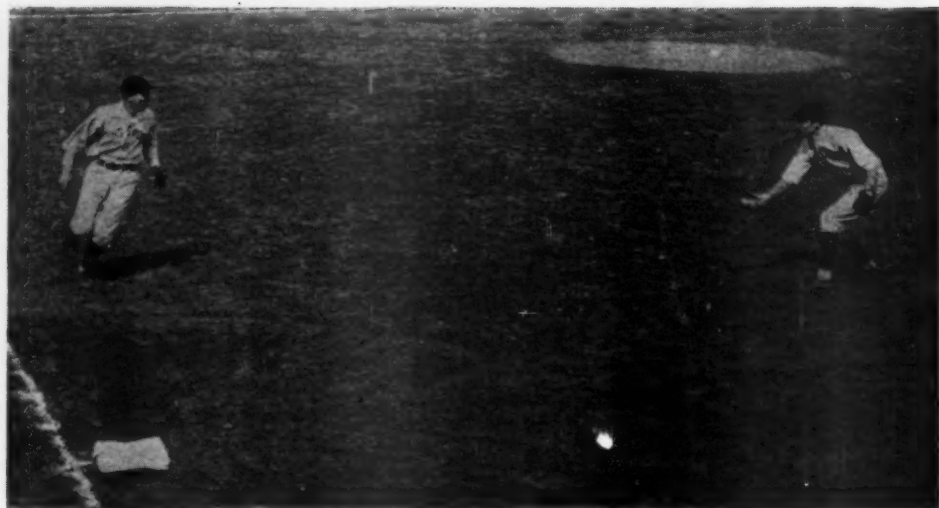
The pitcher should turn over to the umpire any ball with frayed stitches or with a badly cut surface. Control is difficult enough without the uncertain action of a defective ball.

As to his mental attitude, the young pitcher must not acquire the common idea that he must throw the ball by every

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**S**INCE Mr. Gargan's article appeared in the April issue, requests have come to us for copies of his contribution in the April, 1937, issue on *Helping the Secondary School Batter*. Our supply of that issue is entirely exhausted. If coaches wish additional copies of the April, 1938, and this issue for members of their teams, requests should be sent in at once.

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The pitcher covering first base. He comes up inside the base line.

batter. Trying to put too much into every pitch tends to destroy control and create fatigue, which means even less control, because the tired pitcher cannot manage the ball. The pitcher needs to learn to pace his pitching in such a way that he can last a full game without tiring and always be able to put a little extra effort into the pitch. He must understand that he cannot set himself up as the entire defense, that he must rely on the fielding of his team mates as well as on his own pitching skill, and that his own effectiveness increases with the effectiveness of the team behind him. This understanding and practice in pacing in practice games is necessary.

He must not talk to opposing batters and must not let anything that they may say disconcert him. He must develop an attitude toward ball and strike decisions by the umpire in which he will not expect all close ones to be called in his favor and, therefore, will not be upset if they are not. He should expect a few poor decisions during the course of a game. Even the best of umpires will miss one occasionally, and a young pitcher may be affected by such a decision unless he learns to expect it and to accept it as inevitable.

#### Pitching to the Batter

These particular comments are merely personal ideas which may be contrary to established opinion. The only responsibility that I take for them is that they are my own and that they appear to work with our boys. Our pitchers are instructed in the following manner about pitching to the batter.

The young pitcher should first practice throwing good strikes. When he has acquired the ability to throw successive strikes down the middle with confidence, he should then practice throwing high and low, always getting the ball across the plate. He should try to get the high one across between the elbows and shoulders, and the low one between the hips and the

knees. When he has acquired the ability to pitch successive high and low strikes, he should concentrate on *control* of his curve. In this, he should learn to throw



The pitcher pivoting to throw to third.

(a) at the batter's shoulder nearest the plate; (b) directly at the center of the plate waist-high. The first (a) results in a strike which tends to be close and fairly

high. The second (b) results in a low, outside ball. With sufficient practice and a fair curve the young pitcher should have acquired the ability to throw, (1) a good strike, (2) a high, fast ball, (3) a low, fast ball, (4) a curve strike, and (5) a curve on the outside.

I believe that a young pitcher needs all the practice that he can get in learning to pitch high and low and to control his curve. If he can accomplish that, he has mastered about all of which he is capable.

Almost every schoolboy batter is weak on either a high ball or a low ball. Many of them also tend to pull away from the plate. The pitcher should study a batter only to see if he swings his bat through a high plane or drops the end and swings it through a low plane. He should also notice if he tends to pull away. If, in addition to his fast and curve ball, the pitcher is one of those rare schoolboys who have been able to develop a change of pace, he has an additional weapon to use against the nervous, hard-swinging batter.

These few points are easily kept in mind, and the pitcher should work on the batter's weakness. If he can pitch low or high at will and can control his curve, he will find that the average batter will seldom meet the ball squarely, if it is kept out of his groove. The pitcher must disguise his pitches at all times. The ball should be concealed from the batter by the pitcher's glove or body until it has left his hand, otherwise a smart batter might recognize the type of ball that is about to be thrown by noticing how it is held.

#### Specific Suggestions

1. Emphasize the overhand motion. Learn to *pitch* the ball, not merely to throw it.

2. Practice the various stances until they feel comfortable.

3. Work to eliminate faults in the delivery and to acquire a smooth motion.

4. *First* acquire the ability to throw strikes down the middle at will; *then* learn to throw high and low; and *finally* learn

(Continued on page 46)



The pitcher making a turn toward first after running toward the base line.



# The Play of the Infield

By Jack Sheehan

In Charge of Baseball, Chicago Park District

**T**HE second baseman's position is one where size does not play an important part. Many of the game's greatest second basemen have been men of small stature. However, the coach or club, that has at that position a fast thinking, alert man who is shifty on his feet, has a decided advantage.

## The Position of the Second Baseman

The distance from the bag at which the second baseman should station himself is governed by; (1) the amount of ground that he can cover; (2) the strength of his

**F**ROM 1911, when Mr. Sheehan started his baseball career with the Champaign-Urbana Club of the Illinois-Missouri League, until 1935, he was connected with several leagues as player and playing manager. In 1920, he played in the National League on the Brooklyn team that won the world series against Cleveland. In the fall of 1935, he became associated with the Chicago Park District in charge of baseball.

The excellent series of twenty-six illustrations, which appeared in the April issue, and this article on Infield Play, with the accompanying illustrations, will be appreciated by baseball coaches and their players.

can break to the side to which he figures the batter will most likely hit. He should not break until the ball is almost up to the plate. This gives the player a great ground-covering advantage.

In amateur ball, the second baseman, when expecting a runner to steal, usually covers the bag, if a right-handed hitter is at bat; if a left-handed batter is up, the shortstop covers. In professional baseball, he determines first of all whether or not the batter hits to one certain field or straight down the field. If he hits straight, the second baseman covers on a curve or a slow ball to right-handed hitters and the

arm; (3) the field to which the batter is most likely to hit and (4) the number of men out, whether or not there are men on bases, what bases are occupied, the score and the inning.

The first two of these factors need no further explanation. Third, the field to which the batter is most likely to hit may be determined by the second baseman's study of the opposing batter, by his knowledge of the pitcher's ability and by watching the catcher's sign as he calls the ball that will be pitched. The second baseman should see every sign given by the catcher. A right-handed hitter will hit a curve or slow ball to the left field oftener than to the right and will hit the fast ball or in-shoot, as it is called by amateurs, more to the right or to center field, depending on just how fast the pitcher is. The reverse is true with a left-handed hitter at bat. Knowing what kind of a ball is to be pitched to the hitter, the second baseman

## Ordinary Play and Action at Second Base

Illustration 1—Herman has fielded a ground ball.

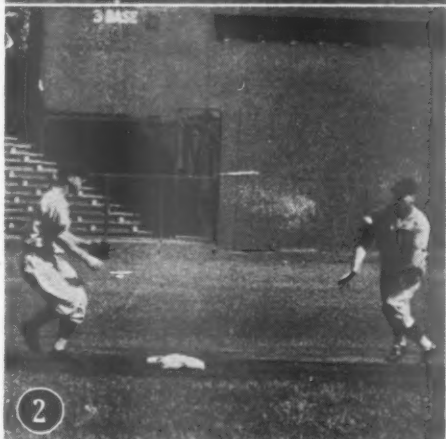
Illustration 2—He tosses the ball to Jurgens.

Illustration 3—He steps on the bag with his right foot. Note that the toss from the second baseman is kept high.

Illustration 4—The shortstop gathers for a throw.

Illustration 5—He steps off the bag with his left foot toward first base.

Illustration 6—He has thrown the ball and is stepping toward right field.



shortstop covers on a fast ball. This is reversed on left-handed hitters.

When the second baseman knows that he is to cover, he should watch the runner on first out of the corner of his eye and stay in position until he is sure that the runner has started for second. Knowing the speed of the opposing runner helps him determine when to leave his position. He should make it a point to arrive at the bag in plenty of time so that he will not be receiving the throw while on the run.

In receiving the throw from the catcher, the second baseman should try to straddle the bag with his left foot on the outfield side of the bag and his right foot on the infield side. Upon receiving the throw he should go right to the ground in front of the base on the first-base side; at the same time he should keep the ball and his bare hand well hidden in the glove. When making a tag, he should not hold the ball too rigid. He should allow his hands to give with the impact of the slider as he is touched.

The fourth factor in determining the position of the second baseman is dependent upon the number of men out, whether or not men are on bases, what bases are occupied, what the score is and what inning it is.

#### *The Fourth Factor*

With no one on base, the second baseman should roam as far from the bag as he feels safe in doing according to his ability as mentioned above in points (1) the amount of ground that he can cover and (2) the strength of his arm. He should take into consideration the speed of the hitter. With a fast man at bat who is an expert bunter, he should not play too deep. This type of batter has a play known as the drag or push. (Drag if he hits from the left side of the plate and push if from the right side.) This is a play in which the ball is pushed or dragged just hard enough to pass the pitcher and make a difficult play for the first baseman. The second baseman who is "heads-up" can practically nullify this play by letting the first baseman know that he will field the ball if it is to the right of the first baseman.

With a man on first and no one out, with a sacrifice in order, the second baseman should move in about twenty feet and over toward first a little so as to be at first base to take the throw in the event that the first baseman and pitcher are engaged in fielding the bunt. Should the pitcher field the bunt and the first baseman return to the bag, the second baseman should back up the play.

Sometimes when the second baseman moves in expecting a bunt, the batter hits instead of bunting. The second baseman after fielding the ball should try to tag the runner and throw to first for a double play. Should the runner go back to first to pre-

vent being tagged, the second baseman should throw to first to get the batter and this leaves the runner still between first and second, where he can be tagged for a double play.

Should there be a runner on third while this double play is being completed and he is able to score before completion of the double play, the run would count. It is well, therefore, for the second baseman to try for a double play by throwing to second when this is the situation.

If the second baseman fields the ball near second and can tag the bag and throw to first or throw to his shortstop at second, who in turn can throw to first, he should do so.

#### *A Double Play*

Whenever a double play is in sight, the second baseman should play a little closer than otherwise. This applies if there is a runner on first, runners on first and second or the bases full and no one out. This does not apply if he is expecting a bunt and has to cover first or when the infield is playing in to shut a run off at the plate.

With a good double play combination there is a big advantage for the second baseman to play back for double plays up to the fifth inning unless his team is behind. If his team is two or more runs ahead, he should always play back for the double play. In order to perfect a good double play combination the second baseman and shortstop must learn to handle the ball fast and get it away with considerable speed.

The second baseman must learn to tag the bag with the proper foot and be quick on shifting his feet. It is also very important that he know how to get out of the runner's way when pivoting to throw to first after tagging the bag.

He should try to time himself in getting to the bag so that he will receive the ball just before reaching the bag. Then he should tag the bag with the right foot and step forward toward the pitcher with the left foot, or at about a 45-degree angle between the pitcher and first baseman, throwing across his body while doing so.

Should the throw from the shortstop be bad and to his right, the second baseman should shift his feet touching the bag on the side toward left field, with his left foot, pivot on the right and throw to first.

Now and then, the second baseman will find a fast runner sliding in as he receives the ball in a straddle position on the bag. When this happens, he can complete the play to first by leaping in the air, causing his body to take a half turn as he throws to first. When he lands after making this throw, he should be facing first and his feet straddling the slider.

With men on first and third, if the man from first steals and the second baseman takes the throw he should get over to the

bag in plenty of time and advance toward the catcher as much as possible.

Should the man from third attempt to score, the second baseman should throw home immediately. If there is no attempt on the part of the runner on third to score and the runner from first holds up or goes back toward first, the second baseman should follow, but he must be careful not to allow the runner on third too much leeway. A very effective trick in this situation is for the second baseman to chase the runner back toward first a few steps, then wheel fast and make a fake throw to third. Usually if the runner on third is not too far from the bag he will slide back. On the other hand, if he is too far he will break for home. In that case, the second baseman must play for him. Should the runner at third slide back, the second baseman should turn and run the man from first right back to that bag, throwing the ball to first at the proper time.

#### *A Delayed Steal*

Often a runner on first will pull what is known as a delayed steal. He does not break as the pitcher throws the ball, but waits until the ball hits the catcher's glove or until the catcher is throwing back to the pitcher. The second baseman must always be on the alert for this play.

Another play that the second baseman must guard against is the one in which, with a runner on third, the hitter gets a base on balls and starts to jog slowly to first, then as he gets about twenty feet from first he goes into high and dashes for second. It is well for the second baseman to form the habit of sauntering over to the bag whenever a man walks.

The second baseman can be of much help to the first baseman by letting him know with a word sign when the curve or slow ball is being pitched, especially if there is a left-handed hitter at bat.

A good double play for the second baseman to keep in mind is the following. With runners on first and second and one or no outs, the hitter who is fast hits a slow grounder to either first, third or short, who throws to second forcing the runner from first. Knowing that the hitter is too fast to double at first, the second baseman should whip the ball to third, as invariably the runner who went to that base from second will round third and can be tagged before he gets back.

Another play which has been made by second basemen is as follows. The batter hits a ground ball to the extreme right of the second baseman who fields it but cannot recover to make the throw to first, but he may toss the ball to the shortstop who, if alert, might get the ball to first ahead of the runner.

A similar play, except that there must be a runner on second when the ball is hit, is one in which the second baseman throws





to third when he cannot recover to make the throw to first since he may get the runner who went from second to third as he rounds third.

In tossing the ball to the shortstop at close range, the second baseman should try to keep the ball about face-high. When a single is hit to the right-field side of the center fielder, the second baseman should return to second base immediately. On extra base hits to the right-field side of the center fielder, he should go out for the relay.

### *The Play of the Shortstop*

This is probably the hardest position in baseball and a player of the durable type should be selected. The shortstop should have a good arm and be able to throw from all positions. This position offers more action than any other.

### *An Unusual and Difficult Play at Second Base*

Illustration 7—Herman starts to his right on a ground ball.

Illustration 8—Note the ball which is over second base. Also note Herman's footwork.

Illustration 9—He has fielded the ball.

Illustration 10—Jurges comes into the picture.

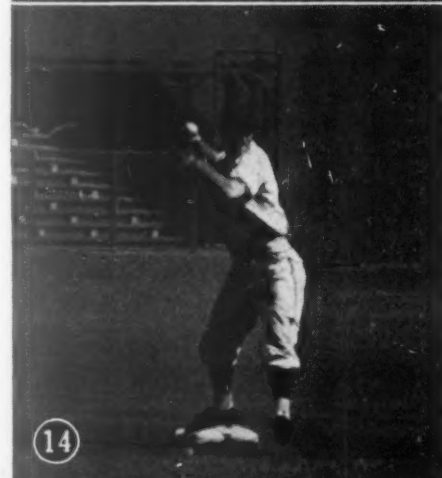
Illustration 11—Herman tosses the ball. Note that Jurges has his back to the infield and is about to step on the base with his right foot.

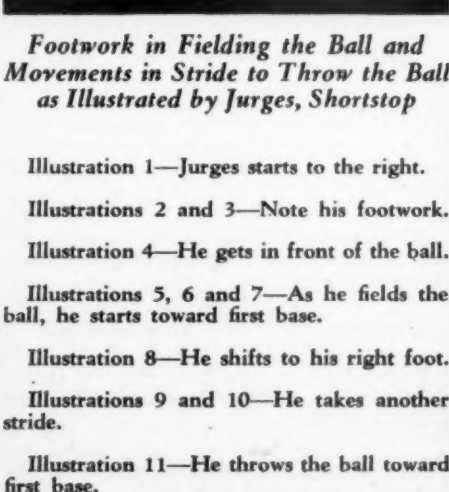
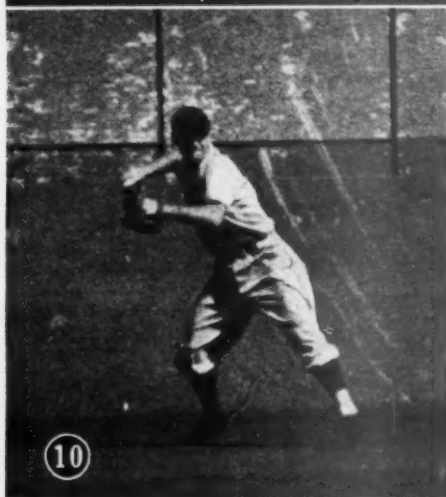
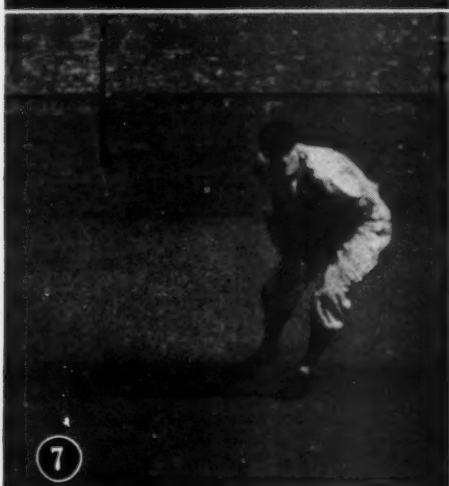
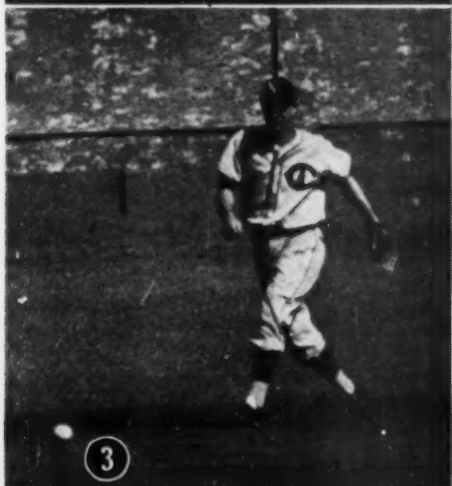
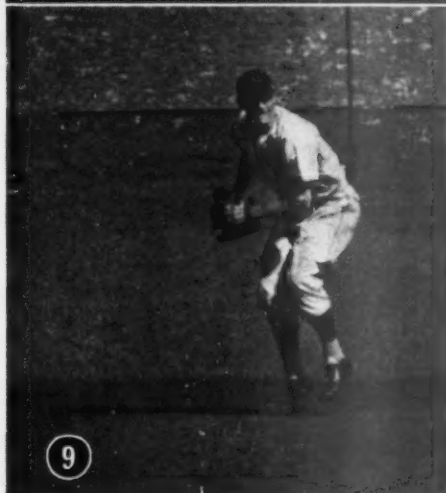
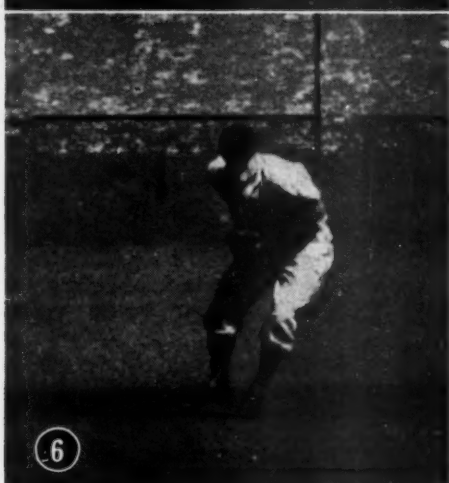
Illustration 12—Jurges is on second base with his right foot. Note that the toss from Herman is kept high.

Illustration 13—Jurges starts to pivot.

Illustration 14—He has made a three-quarters pivot, which brings him in position to throw to first.

Illustration 15—He has started the ball to first and steps toward right field.





***Footwork in Fielding the Ball and  
Movements in Stride to Throw the Ball  
as Illustrated by Jurges, Shortstop***

Illustration 1—Jurges starts to the right.

Illustrations 2 and 3—Note his footwork.

Illustration 4—He gets in front of the ball.

Illustrations 5, 6 and 7—As he fields the ball, he starts toward first base.

Illustration 8—He shifts to his right foot.

Illustrations 9 and 10—He takes another stride.

Illustration 11—He throws the ball toward first base.



Many of the instructions and suggestions offered the second baseman can be applied to the shortstop such as how far to play from the bag, when to play in to shut a run off at the plate, when to play back for double plays, how to catch fly balls, how to handle balls fast; when to leave a position upon taking a throw from the catcher with a man stealing, how to tag runners, how to get a jump on the ball according to a signal from the catcher, tossing of the ball to second baseman when

at close range and fielding of slow hit balls.

In addition to these the shortstop should learn to recover a ball fast if he fails to field it cleanly since he is much farther from first base than the second baseman. He should have a pick-off play with the pitcher as well as the catcher as he has more opportunity to pick runners off base than any other infielder. He should take all throws to second base on bunted balls that are fielded and thrown there. He should relentlessly chase a runner back to

second so as not to allow him too much lead, especially if that runner may bring in the tying or winning run.

With a runner on second or runners on first and second and none out, the shortstop should play close to second, making the runner do likewise until the ball is pitched. The instant that the ball is pitched, he should break to the right in order to be in his regular position, should the batter hit instead of bunt.

(Continued on page 43)

## Observing Hurdle Clearance

By Dan Kinsey  
Oberlin College

FOR the most part a coach observes his hurdlers from two distinct positions in order to make a complete diagnosis of the form used. The first position is one in which the coach stands on the track directly in front of the approaching hurdler and the second position is one in which the coach stands off the track in line with one of the hurdles to be cleared. From these two positions, the coach may see all the mistakes that may be made by the hurdler. Let us take these positions then and note what the coach observes. Let us first stand on the track directly in front of the approaching hurdler. In order to avoid confusion we shall have to ask the hurdler to repeat his hurdling over and over again while we observe the complete movements of one part of the body at a time. For our first observation, let us consider the movements of the leading leg. If the athlete is hurdling correctly, the leading leg should be elevated and depressed in a vertical plane parallel to the edge of the track. The hip, the knee and the foot should remain in that plane throughout the entire movement.

The most common deviation from this form is an in-out movement in which the foot moves in a counter-clockwise path, as seen by the observer. With the beginner, the leading foot frequently does not return to a straight forward position but lands in a crossed-over position. This habit is often corrected if the hurdles are placed on the lane lines in such a position that the leading leg should take off and land on the line.

If, however, the leading foot moves in and out to such an extent that it lands straight ahead, the problem is much more difficult. Much concentration on the part of the hurdler is required. The athlete should work on a low hurdle for a time, concentrating on straight leg action. Perhaps a slight lengthening in the take-off will correct the difficulty.

The same methods may be used in correcting the less frequent movement of out and in; i.e., the clockwise movement of the foot. In either case, the faulty foot

**A**FTER his graduation from McKinley High School in St. Louis, Dan Kinsey attended the University of Illinois. He was a member of the Olympic team in 1924 and captain of the track team at Illinois in 1926. Since 1928, he has been track coach at Oberlin College.

This article was presented by Mr. Kinsey at the Mid-West Physical Education meetings in 1937. He has had many requests for written copies and, hence, is making his statements regarding hurdling available to coaches through the columns of this publication.

action will correct itself if a beginner becomes more and more familiar with the hurdle distance and with the length of his leg.

The second series of observations that the coach makes from the front, deal with the movements of the trailing leg. The first of these observations is that the trailing foot makes a straight take-off. A toeing out take-off is less powerful and tends to produce a body twist.

The second is that, as the hurdler's hips are above the hurdle, the hip, the knee, the heel and toe lie fully within a horizontal plane. If the ankle is below the knee, the hurdler has either failed to attend to the foot lift or is prevented from making the lift by an inadequate body lean.

The hurdler, while holding onto a post or side of a hurdle, should practice body dips with the trailing leg to the side. If the hip joint is stiff, an attempt to raise the thigh to a horizontal position will result in a tilting of the pelvis, causing a lower body lean away from the trailing knee. The hurdler attempts to compensate for this with a reverse lean of the upper part of the body together with a wide return of the leading arm. The net result is a loss of balance and continuance of momentum.

One of the very best exercises by which the hurdler may loosen up this hip joint is to place the trailing lower leg on a hurdle

and then place the leading fingers on the track alongside the leading foot. When this comes easy, he should take the same position and bend the leading (supporting) knee. He should also try to move the leading foot farther away from the hurdle and place the leading elbow on the leading knee.

A coach should observe that the trailing knee does not rise on the hurdler's descent. It is a mistake for the hurdler to allow the trailing lower leg to swing down toward a vertical position as he ascends the hurdle. This results in a straightening of the body and a tendency to jamb on the landing. The trailing knee should come forward until the foot is beyond the hurdle and then proceed to its normal running position as quickly as possible.

The next movement for the coach to consider is that of the leading arm. As the hurdler goes into his hurdle, the arm opposite the leading leg is thrust forward. Most authors state that the arm should be extended completely forward. Earl Thomson claims that it should be but half extended until the hurdler is on top of the hurdle and, as the descent is started, the arm should be jerked backward quickly and then thrust forward to its running position. It is felt by many that this movement cannot possibly add momentum to the body as the physical law of action and reaction indicates that no forward or backward movement while the body is in the air can possibly produce speed.

There are two functions of the forward thrust; one is to add momentum to the body and the other is to aid in procuring proper body lean. For the first function, the thrust should be made as nearly straight forward as possible as only that aspect of the thrust can possibly add to momentum. All upward and cross-body movements are largely wasted efforts. The second function indicates that the thrust movement must be below the horizontal line of the shoulder at the moment of the take-off. It is recognized that this deviation from straightforwardness lessens addition to momentum, but that loss is a

(Continued on page 45)

# The ATHLETIC JOURNAL

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JOHN L. GRIFFITH, Editor

## The Old Story

THE following report taken from *The Chicago Tribune* relative to an address by Dr. Harold Rugg before the Midwest Physical Education Association in Chicago is interesting:

"He stated that a comparatively small percentage of the student body gets any physical benefit from intercollegiate athletics; that intercollegiate sports build up a false loyalty to local and petty institutions; that they tend to commercialize bodily education; that they glorify professional coaches at the expense of more useful and more courageous members of the faculty, and that they hamper the studious activities of the participants.

"Dr. Rugg asserted that the only ones who advocate intercollegiate sport are coaches, players, managers of athletic associations, concessionaires, partisan alumni, and heads of institutions which expect to gain in standing by athletic prowess."

It is hardly necessary to attempt to refute the Professor's statements. It of course is true that only a small percentage of the men students at any given college or university should engage in intercollegiate athletics. It is also true that only a small percentage of the student body is physically and athletically below average and is served by the medical department. We, however, should not condemn the medical department nor the intercollegiate athletic department for that.

That intercollegiate sports build up a false loyalty to local and petty institutions need not be refuted for the benefit of those who have engaged in athletics. If teaching a boy to be loyal to his best self and to a cause is wrong, then our athletics should be condemned.

The charge that intercollegiate athletics tend to commercialize bodily education is an old argument. The boys who play are not benefited financially and the institutions for the most part use the profits from games to benefit the student masses.

When the Professor suggests that athletics glorify professional coaches at the expense of more useful and more courageous members of the faculty and that they hamper the studious activities of the

participants, it smacks a bit of envy and jealousy.

When he suggests that the only ones who advocate intercollegiate sport are the coaches, etc., he perhaps forgets that when the games originated there were no coaches, no managers, no athletic associations, and no partisan alumni. He also apparently ignores the fact that a great many millions of Americans enjoy amateur sports such as are played by the schools and colleges. As we have frequently suggested, there are two types of minds, the destructive and the constructive. The man who thinks destructively believes in the leveling down process. The others believe that the greatest good to the greatest number can be achieved by following a leveling up process. We are convinced that not many educators accept Dr. Rugg as their spokesman.

## An American Appreciation

THE New York *Herald Tribune* recently printed a letter written by a sixteen-year-old schoolboy who came to New York three years ago as a refugee from Europe. The following letter or prayer was written by Martin Mouradian who lives with his widowed mother in New York:

"I am thankful that I have been given an opportunity to be educated in the United States of America.

"I am thankful that I live in a land where every one may salute the same flag.

"I am thankful that I live in a land where regardless of race every one may take part in national ceremonies.

"I am thankful that I live in a land where a person may sing the national anthem without having some one tell him that he may not because of his race.

"I am thankful that I live in a country governed by democracy rather than by force.

"I am thankful that I live in a land where one is not persecuted.

"I am thankful that I live in a land where there are people who have real sympathy for refugees from European countries who have gone through horrible experiences.

"I am thankful that I have been given the opportunity to enjoy the many privileges that are unheard of in European countries.

"I am thankful that I shall be able to realize my ambitions, which would have been impossible had I remained in my native land.

"I am thankful that I live in a land where the future seems bright and hopeful, rather than dark and hopeless.

"I am thankful that I live in a land where the youth of all races have a tomorrow, rather than in my native land where the youth of a race is without a tomorrow.

"I am thankful that I am permitted to tell you of the troubles in European lands in order that you may develop a real sympathy for the oppressed of the earth.

"I am thankful that I am happy and free."





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# Side Lights on Tennis Fundamentals

By Eugene Lambert  
University of Arkansas



A high backhand volley made from a standing position with the eyes of the player well focused on the ball.

I HAVE written previously and many others have written about the fundamentals of properly stroking a tennis ball. There are also many action pictures and motion picture strips available at small cost to those interested in studying technique. All such material which can be secured should be carefully examined and studied by the would-be player and coach. All possible contact with first class tennis is desirable. When a youngster begins to stand before his mirror with his racket in one hand and a picture strip of the backhand of Budge or Austin in the other, he is probably on the right track.

The golf caddie at an early age becomes his own coach and is continually making application to his own form of what he observes in others. The tennis player who gets ahead does the same thing. Even if a competent coach or professional is available, he can be with his pupil only a small time and is not nearly so interested in the player as the player is in himself. It seems to me that this angle of self development should receive more stress. All of the really promising junior or boy players that I know have it.

For the purposes of this article then, we will approach the subject from a slightly different viewpoint. We will assume that a fairly satisfactory grip has been mastered, that the rudiments of footwork are known and being practiced even if not perfected, and that the individual has been told several hundred times to watch the ball until it is struck. He may even have good form and look like a tennis player in the warm-up. We will now proceed from this point and discuss a few side lights on fundamentals.

**B**EFORE returning to his Alma Mater as tennis coach in 1937, Eugene Lambert served as head coach of basketball, football and tennis at Kenyon College. In the summer of 1936, his tennis team at Kenyon made a tournament tour of the country, winning significant honors. Don McNeill, who ranked third among the National Juniors in 1936, was coached by Lambert.

In the first place, I would like to speak of a discrepancy between word and picture in regard to the method of making ground strokes. In many discussions of the play of experts we find that the writers dwell upon the importance of keeping the head of the racket above the wrist in making all ground strokes. Then by the examination of action pictures of Budge, Mangin, Perry, and others we find the racket head meeting the ball six inches below the hand. In explanation it might be said that dropping the racket head down as spoken of above is perhaps not as much a tennis sin as it was at first thought, provided the feet are properly placed and there is good knee and waist bend and body rotation.



A rear view of the slice service. The extreme reach is a feature of all sound service deliveries. The higher the ball is struck, the harder it can be hit with safety.



A medium high forehand volley made near the net. It is evident that the ball was struck well in front of the body, which is a desirable feature. The low finish indicates that probably too much back spin was applied.

In emphasizing the parallel racket for stroking, the point, which was a very good one, was to get the starters away from the old Lawford pendulum arm swing with the feet facing the net.

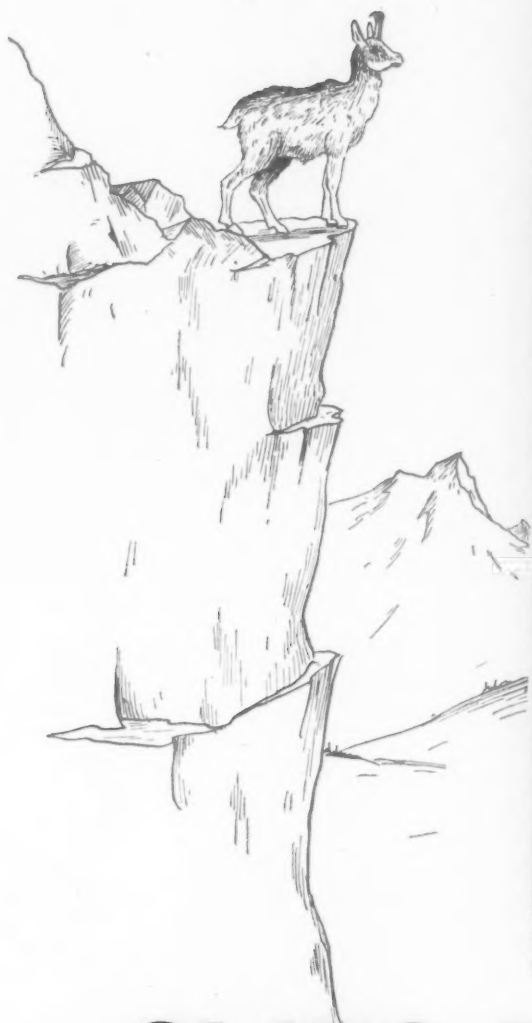
## Mental Aspects of Tennis

The question of attitude in all its aspects is of paramount importance in tennis success. There is the matter of attitude toward practice and improvement. A boy must want to be a tennis player and be willing to give up a lot of other things to that end. He should start tournament play as soon as possible and observe first class play at every opportunity. He must become a student of the game, analyze stroke technique, spin and its effect on the flight of the ball and compare his own strokes with those he sees.

One should not be timid about asking questions of the better players who are in most cases glad to give advice to beginners. Information picked up in this way often points the way to definite improvement.

Competitive spirit is a wonderful possession in tennis, other sports, or any line of endeavor. Tilden said that all great players were scramblers—fellows who would sacrifice form or a little skin off the knee or elbow to win a point. A money player is the same in tennis as in any other sport. Everywhere we see boys with good stroke equipment who practice better than they play and always quit when they get behind in a match.

Now we come to the alibi. Undeclared is a term often heard in connection with



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other sports but is infrequently applied to tennis players. It is not necessary therefore for the juniors to make such excuses as, "I should have beat him with my left hand," or, "The umpire gave him all the questionable points." One promising player I know even claimed that he was drugged by a friend of his opponent and that linesmen were paid to call points against him.

It is true that there are sometimes extenuating circumstances but the boys should be taught not to whine, not to alibi but to take defeat like men, not to like it but profit by it and resolve to do better in the future.

### *Patience*

We sometimes see players otherwise equipped with the qualifications of a champion who do not have the patience to play top-flite tennis.

In the first place there are the shots which just nick the line, the net-cord shots, and the bad calls. Unless a player learns to regard these in the same light as any other lost point, he is in for a lot of trouble. Many a match has been lost because of a flare-up over a questionable point. Grant recently called Riggs the "thinking-est" player on the court today. It takes a calm unruffled mind to keep control of the situation throughout a long match.

There is also patience in regard to over-play. Many youngsters hit the ball too hard from positions where they have little chance of bringing off the shot. They do not recognize offensive and defensive situations. There are times when it is impossible to attack and these must be recognized and played accordingly. Tennis is a game of errors and each shot must be played with all conditions in mind. Steadiness



The drop of the racket here behind the back indicates a powerful service. The use of the wrist in making the service determines the speed and spin of the ball. In no other stroke does the wrist play so important a part.

comes first from sound strokes but it also comes from the application of the right amount of speed. Most youngsters could stand much advice on change of pace. To slam-bang every ball within reach is to pile up errors and thus defeat oneself.

### *Tension*

I am convinced that most young players rush at the ball too much in making all their shots. The tennis stroke is a flowing stroke, rhythmical, possessing poetry of  
(Continued on page 28)



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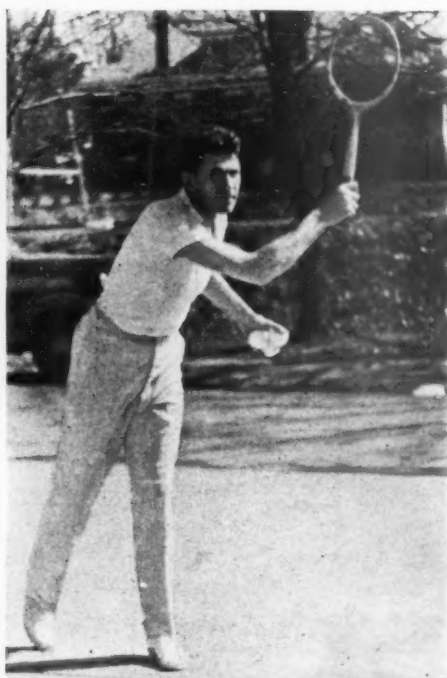
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## Side Lights on Tennis Fundamentals

(Continued from page 22)



A free hit forehand drive with top spin indicated by the high finish. In this case, the spin has been applied by the player hitting

the ball from below up through it, keeping the racket perpendicular to the ground through most of the stroke.

motion, as was said of Tilden's backhand. The jerks and jumps must be eliminated. With the ball in easy reach of a player, he will rush over as if to pulverize it by main strength, perhaps getting his feet tangled up on the way or arriving on the wrong foot and thus be unable to line the shot up properly. The good player looks lazy on the court. By bending at the knees and hips, he gives the impression that he is slipping up on the ball. He starts the stroke with the body relaxed and under

control. Perry talks a lot about taking the ball on the rise and thus causing his opponent to hurry his shots and fall into errors. This hurrying and over-eagerness is exactly what must be avoided. The bull-in-the-china-shop type of player expends a lot of energy but has little to show for it in the form of points won.

Consideration should be given to the method of getting into position for shots. Vines is able to stand in the middle of the base line and with two steps in either di-

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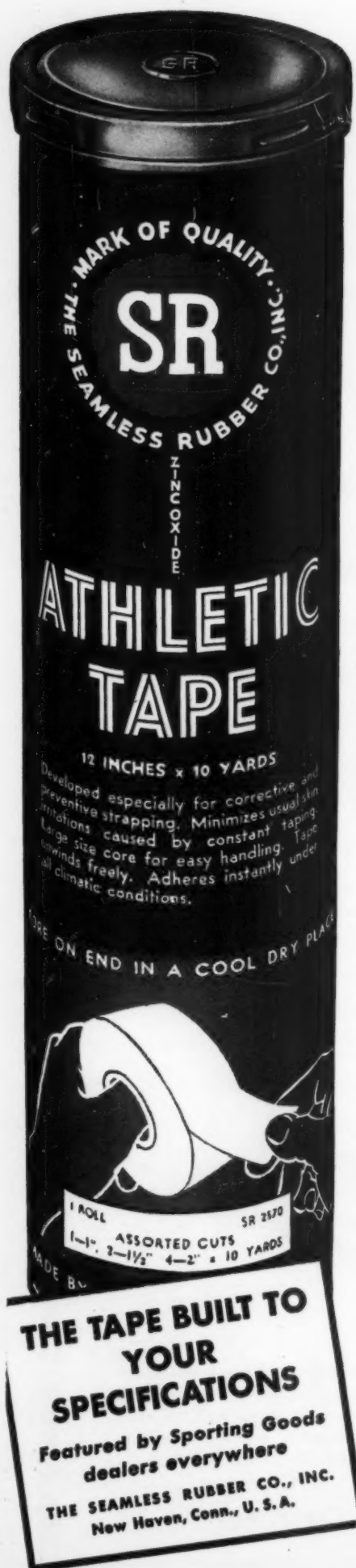
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rection cover all deep balls. It takes practice to go from the waiting position to the ball and always arrive on the proper foot. It is necessary for the player to learn how to come to a stride stop just before getting to the ball. If the player keeps going after a corner shot is made, he is usually hopelessly out of position on the return.

The stride stop is not difficult to master. It is a stock in trade of all basketball players because this sport demands much quick stopping and changing of direction. It consists of lowering the center of gravity in the body considerably, just previous to the planting of one foot firmly. The only time when it is permissible to stride through a ball in stroking it, is the time that the player is on the way to the net. After each stroke has been made, an immediate return to the waiting position is very necessary. This waiting position is in the middle and about a yard behind the base line. By all means one should learn to get back into position after making a shot from the corner.

### *The Service*

The service is too often a push rather than a hit. A certain amount of side or top spin is desirable for control but too much speed should not be sacrificed in this accomplishment. Spin alone does not bother players with a fair degree of skill.

If a fast service is desired, the reach must be extended to its maximum with just enough side spin imparted to the ball to cause it to curve down into the court. It would be well for all average players, and many others too, to forget the freak service deliveries and stay with some variety of the slice service, hitting the ball slightly on the side or top and finishing in front or across the body. A rhythmical swing is the essence of sound serving and the ball should certainly not be thrown up so high that the swing is broken while the server waits for it to come down.

I personally believe in experimentation with this stroke above all others. By this is meant changing the grip slightly and throwing the ball up at different positions relative to the body. A change of pace is highly desirable and the receiver should be made to move in making the return. Accuracy with the serve is therefore a big asset.

### *Position of the Ball*

In a discourse by J. Parmly Paret, we find that he makes the following statement in regard to the backhand stroke. "As in the forehand, the ball should be met, if possible, directly in front of the body and about evenly between the position of the two feet." Then again we find the United States Lawn Tennis Association advising that the most important single factor in connection with a successful backhand is that of taking the ball about twelve inches

in advance of the right hip. It is explained that if the ball is taken much later, the body is hopelessly in the way of a free swing.

Mr. Paret didn't have motion pictures of all the better players to examine when he made his statement and probably the latter viewpoint is more nearly correct. In any event, it would seem a logical conclusion that since the arm is on different sides of the body in the two strokes, the position of the ball when struck would not be the same for both.

I would go a step further and say that the forehand should be taken on the left hip instead of in front of the belt buckle. For most players this would cause an earlier starting of the stroke and there would be a much better chance that the body weight would come forward into the stroke. I firmly believe that the major cause of poor stroking and lack of control is that the swing is started too late and that the body weight is really on the back foot when the ball leaves the racket. The average player would do well to exaggerate this early start for awhile. The pivot and weight shift should be well under way when the ball is met on either wing.

### *Anticipation*

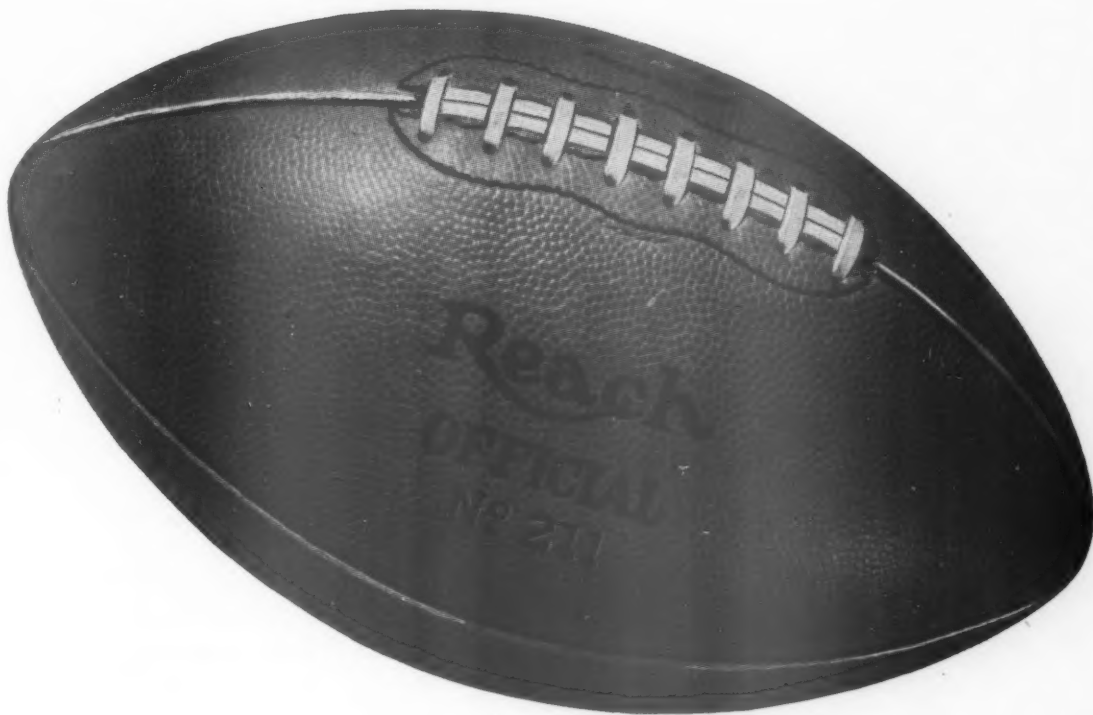
The singles court is a pretty big area to cover unless an early start is possible. Some players develop their anticipation to such an extent that the opponent seems always to be hitting the ball to them. When watching a match, it is a good idea for the tennis student to observe carefully each player's actions just before he strokes to see if any advance notice is given as to the position in which the ball is to be placed. Sometimes a player looks at the spot to which he is going to hit or changes the position of his feet. Many players determine the direction of the ball by the placement of their feet. For instance, the left foot is noticeably further advanced for making a line shot on the forehand than for the cross-court shot. This give-away should make it possible for the opponent to advance in the right direction when the player strikes the ball, which is no mean advantage in retrieving a fast drive into the corner.

Some players learn to disguise their intentions up to the very instant of striking the ball which is very good for them and makes anticipation rather difficult for the opponent. A good method for the player to use in keeping from making give-away signs is to place his feet approximately the same for both line and cross shots but to allow his wrist to go in front of the racket in hitting down the line and cause the hand to come ahead of the wrist in hitting cross court.

It would be advisable for those with ambition to be good tennis players to give much study to the problems of anticipation.



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**FENCE**

## A Student Management System in Intercollegiate Athletics

By Claude Hart  
University of Idaho, Moscow

**A**S senior manager of baseball at the University of Idaho, Claude Hart, Director of Intramural Athletics, suggests in this article how the student managerial systems may prove of benefit to the athletic departments of colleges and high schools. Mr. Hart has prepared a manager's manual in which he describes in detail the duties, qualities and policies of a successful manager.

**M**ANAGERS! Where art thou? This is the wail of coaches throughout the whole United States. They have a right to complain about their student managing of intercollegiate athletics. On the other hand, there is no valid reason for the continuation of the cause of these complaints.

There are three principal reasons for inadequate student athletic managing. One is that the number of candidates competing for sport managerships is insufficient. Another important cause of inefficiency of student managing is that students are unreliable. The third and foremost source of discontent among coaches is that managers do not make their time on duty of real value to the coach and squad.

These managerial maladies are natural outgrowths of lack of system. Coaches say that they have no system, but we take that with a grain of salt. There is no team work without system. The principle of team work is as equally significant to managing as it is to the football club.

Each of the eleven men on a football team has a special assignment which he must successfully perform if his team is to win. If the reader can picture a football game in which none of the players have assignments, he can clearly visualize the plight of student athletic managing without system.

The managerial ills of which coaches complain can be cured. A system must be set up which embodies three preventive measures: (1) Sell the managerships to the prospective candidates; (2) Provide incentive for interest and dependability; (3) Assign particular responsibilities to each manager.

It is through the guidance of the coach and the leadership of a senior manager that specific curatives are applied.

There are at least eight different methods of getting a sufficient number of candidates for managerships: (1) Publicize in the school paper the fact that there are opportunities open to freshmen to become

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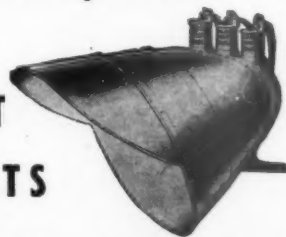
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*(Men mentioned are retained on Wilson's advisory staff)*

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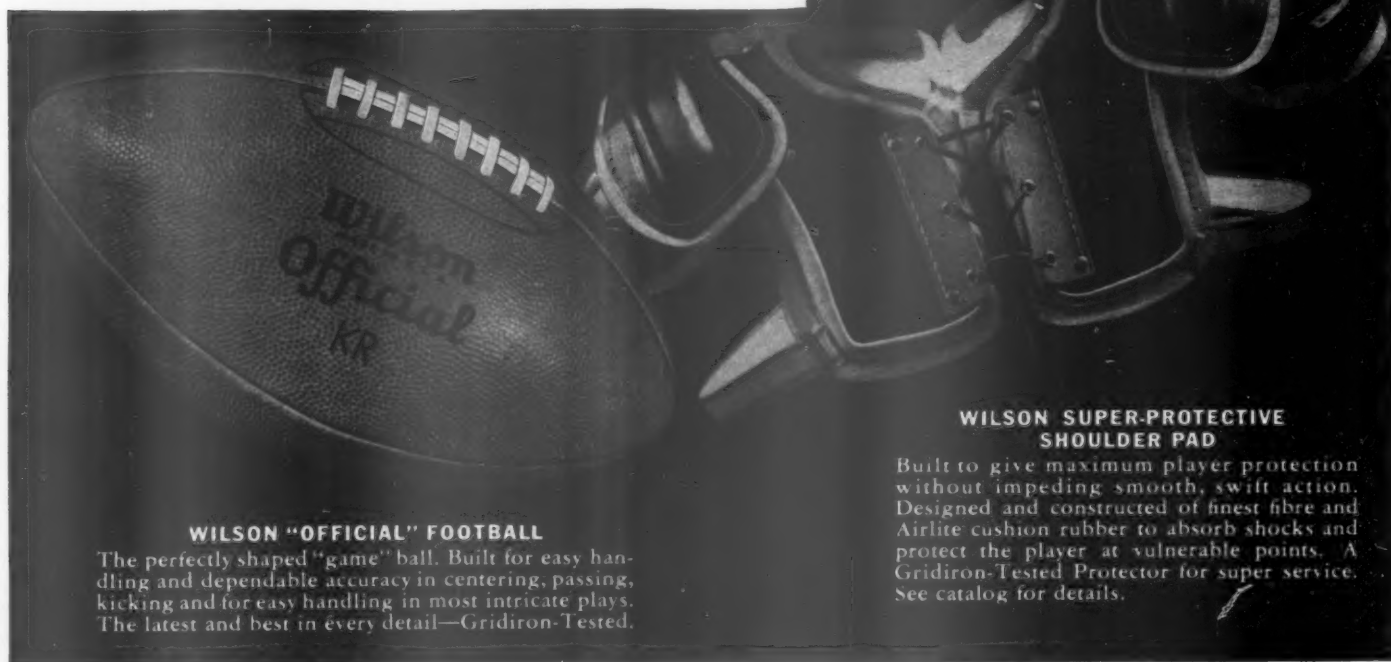
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CHART I

TIME ALLOTMENT AND INSTRUCTION SHEET FOR  
JUNIOR  
SOPHOMORE MANAGER .....  
FRESHMAN ..... Name

After checking your class schedule your senior manager has assigned you the following weekly *required* hours for your *required* (months, weeks).

Monday	to	Wednesday	to	Friday	to
A.M.	A.M.	A.M.	A.M.	A.M.	A.M.
P.M.	P.M.	P.M.	P.M.	P.M.	P.M.
Tuesday	to	Thursday	to	Saturday	to
A.M.	A.M.	A.M.	A.M.	A.M.	A.M.
P.M.	P.M.	P.M.	P.M.	P.M.	P.M.

Any extra managerial service will boost your rating. The extra hours spent managing will determine promotion. If you have academic work to do, don't spend your time managing.

You will be given credit for time *only* when you report to your (senior, junior, sophomore) manager overseer when you come and when you leave. At the closing hour of each week your (junior, sophomore) supervisor will report your total time to the senior manager. He will add it to the ON-DUTY CHART which is posted in the glass-covered bulletin board on the first floor of the Memorial Gymnasium.

Your required (weeks, months) for the (football, baseball, basketball, track) season of the year 19— to 19— are as follows:

..... (Month, week of date to date)	..... (Month, week of date to date)
..... (Month, week of date to date)	..... (Month, week of date to date)
..... (Month, week of date to date)	..... (Month, week of date to date)
..... (Month, week of date to date)	..... (Month, week of date to date)

CHART II

## MAJOR SPORTS MANAGER'S DAILY REPORT

University of Idaho		Department of Athletics						
Competitor's Name:.....		Report made by:.....						
Campus Residence:.....		For the week ending:.....						
Home town address:.....		Academic class:.....						
Campus Phone:.....		Sport:.....						
TRAITS OBSERVED	Sun	Mon	Tue	Wed	Thu	Fri	Sat	This Week's Grade
1. Time on Duty								(total time)
2. Execution of Duties								
3. Planning and Organizing Work								
4. High Spirit								
5. Assumption of Responsibility								
6. Co-operation								

HOW TO GRADE: Record exact number of hours spent on duty in time columns.

Mark plus (+) if always, question mark (?) if part of the time, and minus (—) if never, for numbers 2 to 6 inclusive.

In Column marked "THIS WEEK'S GRADE" average the pluses and minuses for the week and record the result.

**HAND THIS REPORT TO YOUR SENIOR MANAGER AT THE CLOSE OF THE LAST PRACTICE EACH WEEK DURING THE SEASON, SUBMITTING THESE REPORTS PROMPTLY IS A COMPULSORY DUTY OF EVERY MANAGER.**

CHART III

## FOOTBALL MANAGER ON-DUTY CHART

Names	Sept.	Oct.	Nov.	May	June	Time Thermometers
Ratliff (Sr)	Head Sup.	Head Sup.	Head Sup.	Head Sup.	Head Sup.	.....
Anderson (Jr)	Equip	Lock	Equip	Lock	Equip	.....
Boyd (Jr)	Lock	Equip	Lock	Equip	Lock	.....
Evans (Sm)	And.	Boyd	And.	Boyd	And.	.....
Owens (Sm)	Boyd	And.	Boyd	And.	Boyd	.....
Mueller (Sm)	And.	Boyd	And.	Boyd	And.	.....
Abbott (Sm)	Boyd	And.	Boyd	And.	Boyd	.....
Inez (Fm)	Evans	Owens	Muel.	Abb.	Evans	.....
Zork (Fm)	Evans	Owens	Muel.	Abb.	Evans	.....
Carn (Fm)	Owens	Muel.	Abb.	Evans	Owens	.....
Noom (Fm)	Owens	Muel.	Abb.	Evans	Owens	.....
Yiek (Fm)	Muel.	Abb.	Evans	Owens	Muel.	.....
Lalo (Fm)	Muel.	Abb.	Evans	Owens	Muel.	.....
Abid (Fm)	Abb.	Evans	Owens	Muel.	Abb.	.....
Dean (Fm)	Abb.	Evans	Owens	Muel.	Abb.	.....

(Drawn to scale of 8 in. to 1 in.)

■ equals 15 hours

\* In the month columns are listed duties of senior and junior managers and the overseer to whom sophomores and freshmen are assigned.

This ON-DUTY CHART is adaptable to each of the four major sports.

athletic managers. List the awards and interesting experiences that athletic managers enjoy. (2) Mail out special letters from the athletic office to freshmen of each group house. (3) Place attractive posters in each group house advertising the openings in the managerial staff to be filled by freshmen. (4) Telephone the house athletic manager about the chances for freshmen of his house to become an important part of the athletic program. (5) Ask a friend in each of the group houses to announce that positions on the student athletic managing staff are open to all freshmen. (6) Employ tactful personal talks with freshmen. (7) Conduct a freshman manager campaign through the manager's club. (8) Issue special invitations signed by the coach to outstanding prospects for managership candidates.

The next step is to organize the candidates so that they may be depended upon to report for regular duty. To accomplish this, the senior manager does five things: (1) He collects the names, telephone numbers, and class schedules of the candidates as they signify their intention to compete for managerships. (2) He assigns each manager certain required hours on a Time Allotment and Instruction Sheet, as shown in Chart I. He types these in duplicate and files the carbon copy in the athletic office. (3) He calls a meeting of all managers. At the meeting he gives each manager his original copy of the Time Allotment and Instruction Sheet. He assigns each sophomore to a group headed by a junior manager. He forms as many groups as there are juniors. He assigns each freshman to a sophomore. The groups will be known by number. (4) He explains the use of the Major Sports Managers' Daily Report Sheet, illustrated in Chart II. Juniors report on sophomores, and the sophomores report on the freshmen. The juniors hand all the report sheets for their respective groups to the senior at the end of each week. Time is credited to managers only when they report to their superior as they arrive on duty and as they leave. (5) He prepares an On-Duty Chart, illustrated in Chart III. This chart shows to whom each manager is assigned and displays the accumulated amount of time that he has put in. The senior manager adds the red ink, representing the amount of time on duty, at the end of each week. This chart should be posted under glass in a conspicuous place where the student body can watch the progress of the managers.

## A Philosophy for Athletic Coaches

By Dan O. Root

Armijo Union High School, Fairfield, Calif.

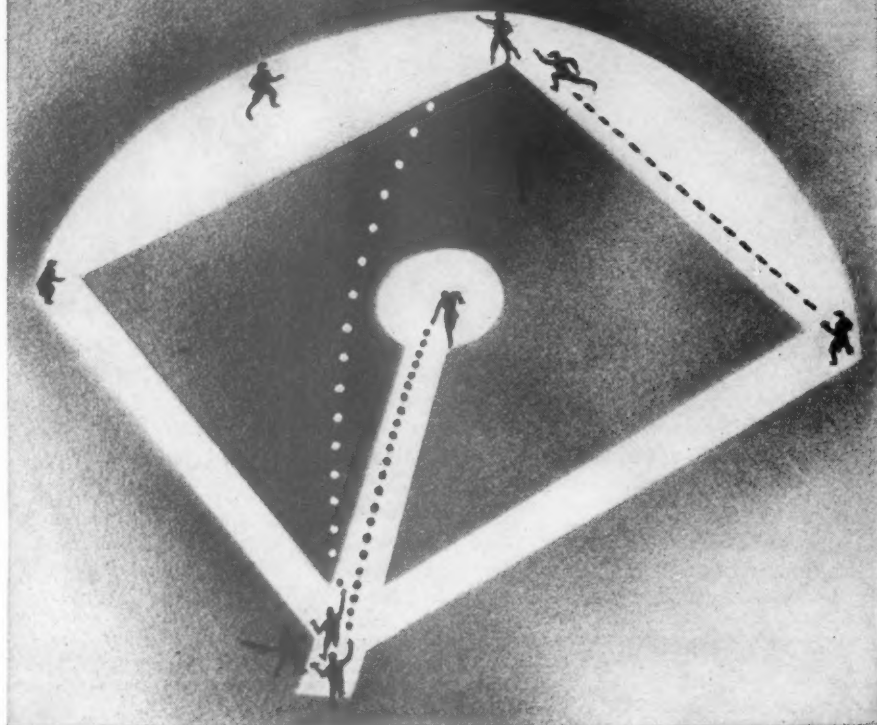
**A**FTER his graduation from the University of Wyoming, Dan O. Root coached in Wyoming high schools, South Dakota State Teachers College, (Spearfish) and Hastings College. For the last eight years, he has been connected with California high schools.

**G**AUGED purely and primarily from the standpoint of the number of games that their teams have won, there are no great athletic coaches. Winning is an entirely wrong basis for the judgment of greatness. It is conceivable that a man whose teams have never won a game can qualify for real greatness; and that a man whose teams have been singularly successful in this respect can, in no way, qualify for this distinction.

### Good Coaching Defined

It is probable that 75 per cent of the men in the coaching field today are good coaches. By a good coach is meant that he has an adequate conception of the game that he is trying to teach, thoroughly understands its rules, knows the basic fundamentals for sound play of the game, both defensively and offensively, and can impart this information with clarity to his charges. If this definition of a good coach is accepted, then obviously the success of his teams is wholly dependent upon the efficiency with which his teaching is executed by his pupils. In other words, his team's success in the matter of winning depends entirely upon his material. Probably no thinking man will question this statement. A coach is the producer of championship teams when he is fortunate enough to be working with a group of boys who are champions under the conditions at the time, and in comparison with the quality of the competition that they are called upon to meet during a particular season. It is entirely possible that the identical team playing the same brand of ball that won a league championship one season might not have won a league championship the preceding season or might not win one the following season; much depends upon the quality of the competition. The credit for winning championships should not go primarily to the coach, but to the personnel of the teams and the coach should freely give the credit to whom it is due. The coach merely basks in the reflected glory of his team's accomplishments. In a league in any one season, probably 75 per cent of the coaches in the league might have secured results had they been working with the same

## CAN THEY BEAT THE THROW TO SECOND?



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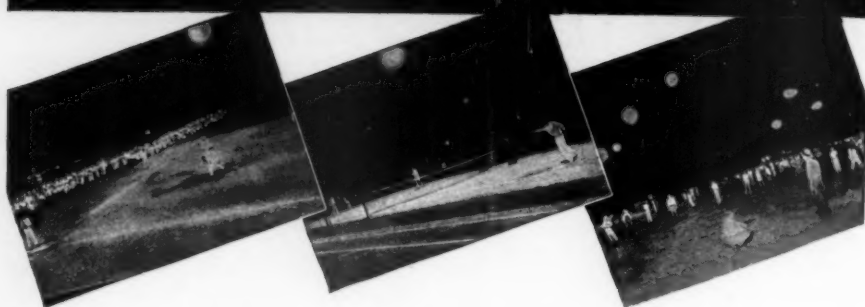
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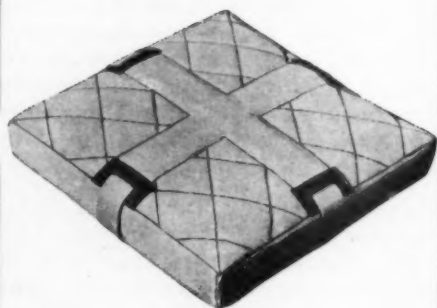
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group of boys that won the league championship. If the material for a championship team is there, it makes little difference which of the so-called systems of play is employed by the coach and the team, or what good coach is in charge of the team. The results will be comparable.

### *Proper Attitude of Behavior*

A coach qualifies for greatness for other reasons than merely winning games. If, in addition to his sound methods of teaching and adequate conception of the fundamentals, he imparts to his charges proper attitudes of behavior and idealism, then does greatness accrue. The members of his team should first work harmoniously together. They should be loyal to one another, should be willing to shoulder the responsibility for their assignments, and not blame other team members when they themselves make mistakes, as all players, at some time or another, do. They should give their best in every play throughout the game and keep their chins up, no matter what the score is. They should not attempt to beat the rules, or use unfair practices in their play not easily detectable by the officials. They should never use plays or methods that smack of chicanery or subterfuge. They should never take unfair advantage of their opponents, and should never humiliate them, either by running up an unduly large score, or in any other manner. They should never belittle an opponent, or make disparaging remarks concerning him or his associates. They should not be disgruntled or act as if they felt that they were getting the worst of the deal. They should have the will to win and give their best, individually and collectively, toward this end as long as it is done fairly and squarely. They should learn to win like gentlemen, which is a more difficult thing than losing like gentlemen. They should not find fault with the officials, or question their rulings, where it is a matter of judgment.

In short, both coach and players should conduct themselves in a sportsmanlike manner. If athletics do not do this, they are not worth while, but are a destructive influence and are not justifiable.

### *Players Reflect the Attitude of a Coach*

The coach can be judged fairly by the behavior and attitudes of his teams on the field and by the manner in which they conduct themselves there, for in this situation they reflect his attitudes and philosophy of coaching. If they fail in any of the essential things mentioned, the coach has come up short in his teachings. If not, then no matter what the outcome of the game the coach has done his work well, and it is on this basis that he should be judged. It is from this source that his greatness as a man and as a coach should be viewed.



# The Distance Traversed by College and High School Basketball Players and Effect of Rule Changes Upon Distance Traversed in College Games

Paul J. Fay  
Department of Psychology  
DePauw University, Greencastle, Indiana

Lloyd L. Messersmith  
Department of Physical Education

IN an attempt to determine the effects of the ten second rule and the rule eliminating the center jump, as regards the distance traveled by college basketball players, the following data were obtained. This is the continuation of a similar project reported on in 1931, before the inclusion of the ten second rule and the rule eliminating the center jump after the scoring of field goals.<sup>1</sup> Data are also available on the distance traveled by players in high school basketball games, but no comparison can be made relative to the effect of the two rules in question as no study was made on high school play-

<sup>1</sup> Messersmith, L. L., Corey, M. S. Distance Traversed by a Basketball Player, Research Quarterly, American Physical Education Association, 1931.



Apparatus used in measuring distance



Mr. Fay at the wheel, Mr. Messersmith recording data

TABLE 1

Number of Feet Traversed on Offense and Defense							Game Totals		Ball Changes During Game		
Game No.	Offense First Half	Offense Second Half	Defense First Half	Defense Second Half	Total Defensive	Total Offensive	In Feet	In Miles	First Half	Second Half	Total For Both
1.	4778	3910	4760	6988	11748	8688	20436	3.86	33	26	59
2.	4970	4754	5680	5570	11250	9724	20974	3.97	34	40	74
3.	5632	6507	3824	4974	8798	12139	20937	3.96	32	30	62

In game 1, a player in the guard position was clocked; in game 2 the center; and in game 3 a forward.

TABLE 2

Number of Feet Traversed on Offense and Defense							Game Totals		Ball Changes During Game		
Game No.	Offense First Half	Offense Second Half	Defense First Half	Defense Second Half	Total Defensive	Total Offensive	In Feet	In Miles	First Half	Second Half	Total For Both
1.	3720	3790	3520	2980	6500	7510	14010	2.65	29	31	60
2.	4850	4710	3750	3620	7370	9560	16930	3.20	31	32	63
3.	3657	3650	3861	3950	7811	7307	15118	2.86	34	34	68

for MAY, 1938

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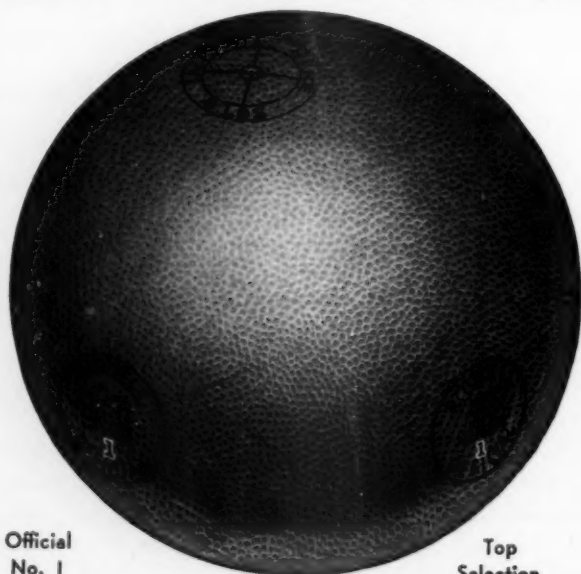
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feet on the playing floor. To determine the number of feet traveled by a player the experimenter follows the movements of the player on the small floor with the tracing wheel. Rolling the wheel from one end of the floor to the other produces a total of 47 contacts, which multiplied by 2 gives 94 (the length of the college floor in feet), so any inaccuracy in the result lies in the inability of the operator to follow accurately the movements of the player. As high school games are checked the small floor is decreased proportionately in size to conform with actual measurements of floors where players are being observed. All observations were made from a position above the floor where a clear and unobstructed view of the playing floor was available at all times. The apparatus used in the present study is identical with that used in 1931 so that the relative difference in distance traveled by players in college games in the two experiments should be reasonably accurate, even though slight inaccuracies might be present in recording the number of feet traversed by a player in any one game.

In 1931 it was found that the distance traveled by college players ranged from 2.25 miles to 2.50 miles per game. In the present study, however, the distances traveled have been consistently longer, ranging from 3.87 to 3.97 miles per game. Complete records have been kept of several games but only three representative games are included in Table 1.

In Table 2 the results of three high school games are listed. While the distance traveled by high school players is less than that traveled by college players for a complete game, it is interesting to note that the distance traveled per minute of playing time, is about the same in both games. In the college games indicated in Table 1, the distance traveled, per minute of playing time, for games 1, 2, and 3 is 501.9, 524.4, and 523.4 feet respectively. In the high school games listed in Table 2, the number of feet traveled, per minute of playing time is 437.8, 560.3 and 472.4 respectively. The games included in these tables are fairly representative of all games clocked during the season. One would expect a slightly greater distance for college players due to the fact that the playing floor is twenty feet longer, which distance must be traversed each time the team changes from offense to defense.

In the high school games the ball changed hands, that is passed from offense to defense and vice versa with greater frequency, per unit of playing time, than in the college games. Ball changes were 60, 63, and 55 respectively in the high school games, as against 59, 74, and 62 in the college games. Since the high school games were eight minutes shorter than the college games there were more ball changes per minute of playing in the secondary school games. This may be one explanation

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tion for the fact that high school players appear to move faster than college players. Frequent ball changes require quick shifts from offense to defense, and this adjustment is made with less running by high school than by college players because of the shorter floor on which high school games are played. The center who takes the ball off both backboards, for example, would travel twenty feet farther on each ball change in a college game.

Since a study was not made of distances traversed following the inclusion of the rule eliminating the center jump, it is impossible to state the relative effects of these two rules upon the increase in distance traversed by players in college games. Both have undoubtedly been contributing factors, but to say which has had the greater influence would be, in the opinion of the writers, a mere guess. Both studies of college players were made on players representing the DePauw University basketball team, which team was under the direction of the same coach during the course of both studies. In general, changes in styles of play which would affect the distance traveled by a player have been only those which were necessitated, or made possible, through the application of the rules under consideration. Studies of high school games were conducted in the Greencastle High School consisting of players representing the Greencastle High School team and their opponents.

#### Summary

1. Distances traveled by players in college basketball games are consistently greater than they were in 1931, before the inclusion of the ten second rule and the rule eliminating the center jump after the scoring of field goals.

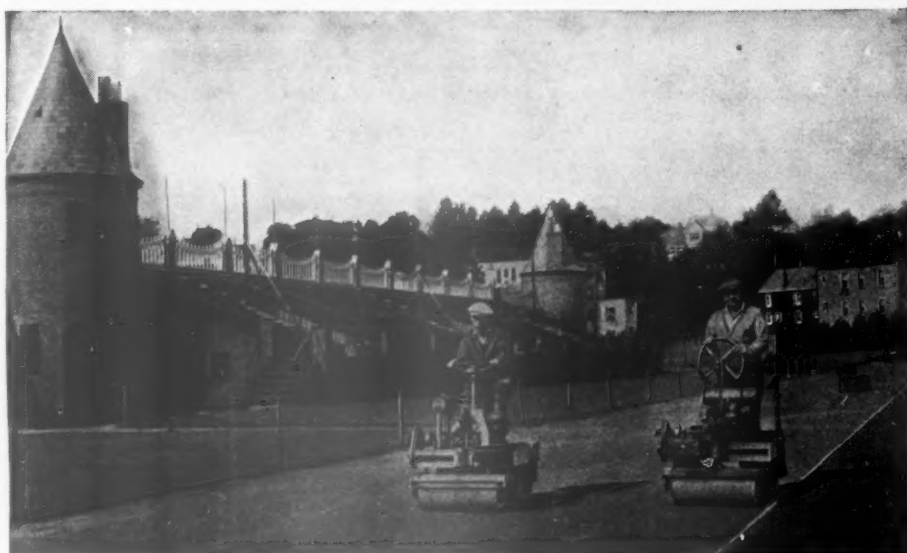
2. It is not possible to draw definite conclusions from this study, regarding the relative effects of the two rules upon the increase in distance as no study was made following the inclusion of the ten second rule, and before the inclusion of the rule eliminating the center jump.

3. Distances traveled by college players were found to range from 2.25 miles to 2.50 miles in 1931, as against a range of 3.87 miles to 3.97 miles in the present study.

4. Distances traveled by high school players were found to range from 2.65 miles to 3.20 miles per game.

**E**ARLY in May, renewal notices will be mailed out to all subscribers whose subscriptions will expire with the June issue. Last year the special request that subscribers send in their renewals in May was observed with splendid co-operation, which was greatly appreciated by the business management. Your early renewal makes it possible for this work to be done during the summer. Your co-operation again will be appreciated.

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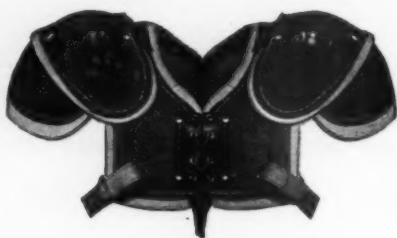
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## Arranging the Intramural Program in a Rural High School

By Charles A. Nash

Floodwood, Minn., High School

THERE has recently been a great deal of material in school publications relative to the value of intramural activities. Superintendents, principals and coaches read this material and say, "All very fine, but we could not do that in our school because our schedule is such that we do not have time or we do not have enough teachers," or some similar excuse is made.

In our high school, we have 253 pupils, of which 218 or approximately 86.1 per cent are transported to school by bus. Some of these pupils leave at 3:45 and the remainder at 4:00 o'clock. The last period of the day is set aside for extra-curricular activities. We also have a 45-minute noon hour which we use for intramurals and noon-hour activities.

The last period must be used for inter-scholastic football and basketball practice so that we do not have very much time in which to develop a program. Five years ago we started with a few activities and worked up gradually until now we feel that we have a fair program, all things being considered.

### The Noon Hour

The first handicap which we attempted to overcome was the short noon hour during which a student was expected to eat lunch, play a game of basketball or speedball, take a shower and be back in his home room for the 12:45 roll call. Our solution of this problem was to excuse at 11:45 those pupils who were going to take part in strenuous games that require change of clothing and showers. Before we adopted this practice, many pupils either ate no lunch at all or hurriedly ate a sandwich while changing clothes and getting ready to play a game. We realize that we still do not have a perfect set-up for noon games, from the health standpoint, but conditions are a great deal better.

The next problem which arose was that a few "black sheep" were taking advantage of this arrangement occasionally to skip the last fifteen minutes of the third-hour class. This practice was soon stopped by having the chairman of each sport that expected to have pupils excused from class, present each teacher concerned with a schedule of games. This schedule included the names of the pupils on the several teams. An announcer is appointed in each home room to check daily the master schedule on the specially reserved portion of the blackboard. This takes care of changes in schedule due to unforeseen

### Baseball Manual

Fundamentals, Technique and Strategy

by

Jack Sheehan, in charge of baseball,

Chicago Park District,

Bessemer Park, Chicago

May 15th

### Closing Date of the Athletic Journal Contest

If you are contemplating entering an article in the contest as announced on page 41 of the April issue, note that May 15th is the closing date. All manuscripts must bear a post-mark not later than May 15th. Winners will be announced in the June issue and articles will be printed in that issue.

events. Under this arrangement, a teacher may check quickly to see if all of the details have been cared for by the chairman of the report.

The next difficulty presented was created by the fact that all junior high school pupils are required by the Minnesota State Department of Education to be in class six hours a day. Since there are only six hours in the school day, this requirement makes it necessary for these pupils to be in class during the last period of the day. In order to make it possible for junior high school pupils to enjoy intramurals and to use these periods as laboratory periods for the physical education classes, we adopted the same plan that we have in effect for the noon-hour period. In other words, pupils who are scheduled to play during the last period are excused from class. The same arrangements are made by the chairman and home-room schedule announcers as are made for the noon-hour program so as to make it easier for every teacher to check up rapidly.

Because of the fact that all of our intramural teams have members from all six years of the high school, there are no teams composed entirely of players from one class. Since our teams are chosen this way, there are never more than a few pupils to be excused during any one last period. A pupil never has occasion to be excused from his last hour class more than once or twice a week; therefore, his or her class work does not suffer. To insure further that the pupil is not losing out in his studies, a reciprocal arrangement has been reached between the pupils and the teachers. Every pupil who wishes to be excused from a last hour class must ask permission not later than noon of the same day. Usually, one pupil in each class presents the list of the names of those who wish to be excused. This reduces the number of slips to be signed. The pupils must have their assigned, written work finished to the best of their ability and ready to hand in at the beginning of the last hour. Furthermore, the pupils must be responsible for getting any advance assignments and for being prepared on the following day. The teachers agree to excuse any pupil who fulfills these requirements.

The results of our program seem to be as follows: The pupils make an extra effort to get their work finished. They show a better attitude toward their work in general, usually reacting thus, "The teachers are going out of their way to make things pleasant for us, so we will stretch a bit to do the same for them." Pupils learn occasionally that unless they live up to their part of a bargain, they cannot expect others to live up to their promises. Things do not always run as smoothly as a well-oiled machine, but we are happy that they do not, because if everything worked perfectly, our pupils would be living in an unreal world. We believe that occasional crises in the lives of



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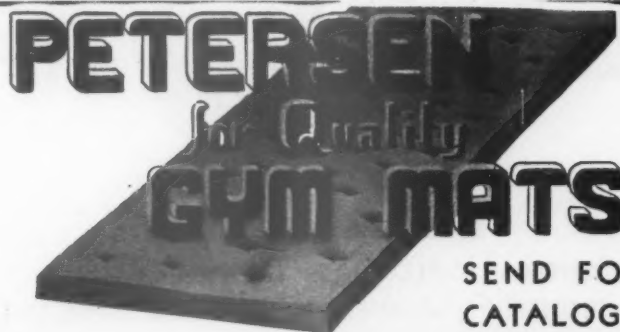


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## Coaching School Directory

On the following pages are listed summer coaching schools to be held this summer.

Use the coupon on page 25 in writing for more detailed information about the schools in which you are interested.

Butler University Coaching School  
August 8—13

California Summer Football School  
June 20—24

Catalina Island Coaching School  
August 8—13

Cornell's Football Coaching School  
June 27—July 2

Indiana Basketball School  
August 15—19

Minnesota University Coaching School  
June 13—18

North Carolina University Coaching School  
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Northwestern University Coaching School  
August 15—27

West Virginia University Coaching School  
August 8—13

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August 15 to 27, 1938

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The staff of instruction will include: Director Fetzter, Raymond Wolf, John Vaught, W. F. Lange, Walter D. Skidmore, P. H. Quinlan, Bunn Hearn, M. Z. Ronman, M. D. Ranson, and John Morriss.

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For illustrated announcement, address

Secretary E. R. RANKIN  
Chapel Hill, N. C.

children and groups serve a good purpose, for they make re-examination of fundamental concepts of behavior necessary. In their intramural activities, they can learn how to solve their problems of adjustment and thus receive training which will be of value to them in their lives after they leave school.

These are some of the things that we have done to answer the intramural question in our school. This arrangement may not work nearly so well in another school where conditions are different. Rules and regulations should be made only when the need for them arises.

It is un-American to attempt to fit pupils to a pattern, better fit the pattern to the pupils.

## Should Basketball Teams Be Rated?

By Robert D. Wright

Mount Union College, Alliance, Ohio

**D**URING the past basketball season, the Litkenhous rating system has been prominently used in many newspapers in this section for the purpose of ranking the various college and high school basketball teams. I have been very much interested in the Litkenhous college and high school basketball rating system principally because of the possibilities of the plan.

However, it seems to me that the present Litkenhous method of ranking teams solely by their difference in scores from an offensive standpoint alone is very inadequate and unfair and presents only one-half of the picture.

Turning to page one of the Official Basketball Rules book, in the first paragraph under the heading of *The Game*, one finds the following description of the game of basketball which, in my opinion, has never been improved upon: "The purpose of each team is to score as many points as possible by tossing the ball into its own basket and at the same time prevent the other team from securing possession of the ball or scoring."

Obviously, the purpose of the game is twofold—defense versus offense. But equally obvious is the fact that "A basket saved is as good as a basket earned," paraphrasing an old thrift principle which is time-worn but still true. Consequently, how can one reasonably overlook this fact in rating basketball teams? A team with a good defense and a well organized offense may be far better equipped to win a majority of its games than a team which gambles everything that it has on its offense.

In my opinion, it is unlikely that experts will take very seriously a ranking of basketball teams on a purely offensive basis. If it is desired to make a true ranking of

FOOTBALL

MINNESOTA

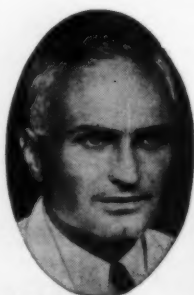
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basketball teams, why would it not be better to compile the defensive standings of the various teams along with their offensive rankings, and then a comparison of the two rankings together with their season's records would give a more accurate picture of a team's strength.

Another weakness of the Litkenhous rating by offensive comparison alone is apparent when one considers those instances where coaches keep their regular five players in the game for the full length of the game in order to break some kind of a scoring record as compared with those instances where other coaches follow the policy of making frequent substitutions in all games in order to give their substitutes and younger players an opportunity to gain experience which will be helpful in maintaining a continuity of winning teams. A comparison by means of offensive scores alone is equally unfair and unsatisfactory in these cases.

Is it not possible that if one will make a comparison of team strength on the basis of both offensive differences in scores and defensive differences in scores, the answer will be found to be the so-called occasional let-down on the part of some highly rated offensive team which has, in reality, been fairly and squarely defeated by a team equally as strong in another phase of the game?

Basketball teams vary in kind just as individuals vary in kind. Individuals do not all have the same talents and neither do basketball teams. I believe that a better yard stick can be applied in rating basketball teams if the suggestion, mentioned above, is used, and thus the various teams can be rated both defensively as well as offensively to a far more accurate degree.

## The Play of the Infield

(Continued from page 17)

With a runner on first if a batter singles to the right, the shortstop should advance to the inner part of the diamond to a position about thirty or forty feet in front of the third baseman. Invariably the runner who was on first when the ball was hit, will try to go to third. If the throw from the outfield can get the runner going to third, the shortstop lets it go through to the third baseman. If in his judgment, the runner going to third will be safe, the shortstop should cut off the throw and can very often catch the man who hit the ball, as he goes to second or can prevent him from reaching second.

On extra base hits to the left and left center, the shortstop should go out for the relay. Whenever possible he should take all fly balls hit directly behind the third baseman.

In making double plays, he should time his approach to the bag so as to receive



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## 1938

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the throw just before he reaches the bag and then hitting the bag on the outside (toward the outfield) with the toe of his right foot, he should get the throw away as his foot hits the bag and should step to the left with his left foot so as to be out of the way of the runner coming in. It is not necessary to step on top of the bag in making this play. Should the throw be bad and to his right, he should shift his feet, touching the inside of the bag, (toward the pitcher) with his left foot, pivot on his right foot, getting rid of the ball at the same time. This will also leave him clear of the runner coming in.

The shortstop should have an understanding with his pitcher and second baseman, that, when the ball is hit back to the pitcher with a man on first, men on first and second or the bases full, he will take the throw at all times. This prevents a very confusing play. It is an easy play for every one concerned when agreed upon beforehand.

On singles hit to the left and left center, the shortstop should return to second base and be backed up by the second baseman. Like all other infielders he should study the speed of the opposing players and try to determine in what direction each batter is likely to hit. On ground balls hit to the extreme right, the shortstop will find it to his advantage to straighten up and throw overhanded. He should have a word sign with the third baseman, to let him know when a slow or curve ball is being pitched to the hitter.

## Working with High Jumpers

(Continued from page 10)

day he has not once been able to do anything but straddle the bar. He has jumped 6:8½, using that style. Walker's 6:10 jump has changed the complexion of things. Dave must go on up to greater heights.

For the past week, the experimenting has been going on and he has convinced me that he is right. When he feels for the take-off, chopping his long strides into unrecognizable, stuttering, pitter-patter steps, he gains a take-off position that greatly increases his leverage. His distance from the bar is bound to vary, but he has proved to me that he is one jumper who does not fit into the approach-mould that we think of as the most efficient. Check marks will be studiously avoided. We shall see what we shall see.

Gilbert Cruter

By Frank C. Potts

University of Colorado

Gilbert Cruter, Colorado high jumper, graduated from West Denver High School

THE ATHLETIC JOURNAL

in 1934. His best jump in high school was 6 feet ½ inch.

Cruter uses the unorthodox form known as the barrel roll. The old high jump rule which demanded that a jumper have one foot preceding his head across the bar bothered him very much. When the present rule was adopted, Cruter immediately started getting greater height. He has the ideal build for high jumping, being 6 feet 5 inches tall with long legs and no excess weight. He is a good competitor and likes to jump.

During the season of 1936 he won the Kansas Relays championship, was Rocky Mountain Conference champion and placed fourth in the N.C.A.A. Meet. During the 1937 season he placed third at the Kansas Relays, set a new Rocky Mountain Conference record in winning the championship and placed second in the N.C.A.A. Meet at Berkeley.

Cruter's best jump is 6 feet 8⅞ inches made indoors. He is usually good for about 6 feet 6 inches. Cruter is a senior this year.

## Observing Hurdle Clearance

(Continued from page 17)

necessary price for the very valuable gain of good body lean.

In summary then, the correct forward movement of the leading arm is a thrust forward vigorously at the moment of the take-off and a complete extension of the arm on this thrust. The direction of this thrust should be a little below a straight forward position, avoiding any lateral or upward movements.

From the front position, the coach also can watch the backward movement of the leading arm. This movement is the subject of much controversy. In the hurdling clinic of the National Collegiate Track Coaches Association, Snyder claimed that the movement, at which hurdlers should aim, is one in which the elbow is brought back alongside the body. Johnson and others claimed that it is physically impossible to do this; that the elbow must be brought back laterally in order to clear the trailing knee and thigh coming through. Rider compromises and says that, whether a close arm movement can be accomplished or not depends upon the length of the hurdler's torso. The answer should be simple. The coach should have his hurdler try it. If it is possible to have the elbow pass near the body, that position would be preferred, as it more nearly approximates the running position of the arms. The coach and hurdler should be skeptical about a wide elbow return, as that is often a compensatory movement to a stiff lateral hip action.

Some observations are more easily taken from a position off the track opposite the

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Arkansas—Forward Pass



**DUTCH LONBORG**  
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hurdle. From this point, the coach observes the movement of the leading leg from a slightly different angle. He notices that the leading action is one of a vigorous step rather than a stiffened swing of the leg. The heel just clears the hurdle but the knee is not locked open. An attempt to get a full, straight leg action frequently causes an upright body position.

The coach observes that the trailing leg is fully extended before leaving the ground. This seeming delayed leg action prevents the common fault of pulling the foot off the ground before securing the maximum drive from the action.

The lean can best be observed from the side of the body. The body lean should be established before the take-off is made. Of great importance is the maintaining of the body lean until the landing is made. A continued body lean not only prevents a straightening up with its consequent jamming but forms a substantial base from which the leading leg is quickly and forcibly sprung to the ground.

It is extremely important for the coach to observe the co-ordination of the leg

movement from the side. While the so-called hurdling position is a good practice technique on the ground, it is a mistake for a coach to think that the hurdler gets into that position and floats over the hurdle. That is just what too many hurdlers do naturally. In fact, the hurdler never at any time gets into the hurdling position, for when his leading leg is horizontal the trailing foot is barely off the ground and when the trailing leg is horizontal to the side, the leading foot is approaching the ground beyond the hurdle. For speed of clearance then the hurdler must concentrate on the timing of the depression of the leading leg and the pulling through of the trailing leg. He must start running from the top of the hurdle.

If the timing of the arm action is added to this, the result is the hurdle-snap. The hurdle-snap consists then of a finely co-ordinated series of movements of arms and legs; i.e., the leading leg depressed, the trailing leg pulled through, the leading arm snapped back and the trailing arm shot forward, all the while the body lean remaining unchanged.

## Pitching Fundamentals for the Schoolboy

(Continued from page 12)

to control your curve ball.

5. Form the habit of using the rosin bag.

6. Shift about on the rubber if you are having trouble with your control.

7. Keep the holes filled.

8. Do not pitch with a defective ball.

9. Concentrate on the target as you start your delivery. Do not look toward the runner at this moment.

10. Be sure your catcher is standing directly behind the plate.

11. Do not put everything you have into every pitch. Save energy for the late innings, and for the pinch.

12. Do not talk to opposing players or pay attention to their comments or to those of the spectators.

13. Expect the umpire to call a few bad ones.

14. Use the curve ball sparingly, about one in every four pitches.

15. With a man on third, make sure that the catcher's return is a short throw.

16. Take the signals from a point a step behind the rubber.

17. Keep the ball concealed from the batter.

### 5. FIELDING

The moment that the pitcher releases the ball toward the batter, he becomes an infielder. He must be prepared to field all balls hit within his reach and all bunts that the catcher, third or first baseman does not take. He must learn to cover first on any ball hit to his left, to back up throws to third or other bases and to cut

off throws from the outfield.

### Fielding Infield Balls

As the pitcher (right-hander) releases the pitch, he should bring his right leg around to a position about parallel with the left, keep his body low, his glove hand in front and his eyes on the ball.

He should try for every ground ball within reach except some of the bunts which may better be taken by the catcher or the first or third baseman. He should come in fairly fast when he thinks the batter may bunt. He should try to knock down all hard-hit balls, and on slow-hit ones, go in fast and attempt to have his legs in line with the base to which the throw is to be made when he reaches the ball. Generally, he should straighten up and make an overhand throw, but occasionally it is necessary to throw underhand. If third base is occupied with less than two out, he must fake the runner back toward third before throwing to first. The third baseman or the first baseman takes all fly balls in the vicinity of the box, and these two, together with the catcher, take all foul flies. The only flies that the pitcher is called upon to handle are the short flies that land in front of the plate.

### Covering First Base

The pitcher must start toward first base on every ball hit to his left which he does

not handle. He should run toward a point on the base line about fifteen feet from the base and attempt to keep the play in front of him by running up along the inside of the base line instead of across the base at right angles to the base line.

### *Backing Up Bases*

Whenever there is the possibility of a throw to third from the outfield, the pitcher must back up the third baseman by placing himself in line with the throw about thirty or forty feet in back of the base. If he places himself in this position, he will avoid the common error of being too close to the man whom he is backing up.

He must also be ready at all times to back up throws to bases other than third, including home, if the situation requires it.

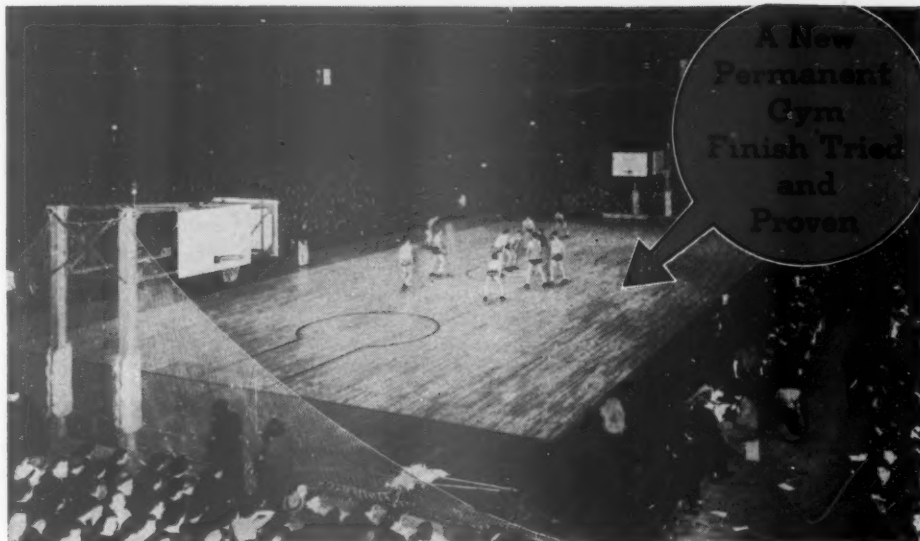
### *Cut-offs*

With a man on base, it is often advisable for the pitcher to cut off the throw-in from the outfield after a hit and to throw to a baseman in an attempt to get the hitter. The pitcher should station himself from forty to fifty feet in front of home and in line with the throw-in. He should then follow the direction of the catcher in letting the throw go or in cutting it off. If he is to cut it off, he must be sure to get his body directly in the path of the ball.

### *Specific Suggestions*

1. Before you pitch, be sure you know where you are to make the play if the ball comes to you.
2. Keep your body low, gloved hand in front, and eyes on the ball after delivering it.
3. Consider yourself as the short-fielder on all balls near enough to handle, and as an extra infielder on all other plays.
4. Start toward first base on all balls hit to your left.
5. When backing up a base, do not line up too close to the baseman. Be prepared to back up any base.
6. When taking a fly ball, call out, "I have it."
7. When you are on the rubber and a runner starts to steal before you have started your delivery, step back off the rubber with the right foot (right-hander) before you throw to catch the runner.
8. With a runner on third, be sure that he has not started for home before you make the play to first base.
9. Do not take your position in the box until you are sure that your team mates are in their proper positions.
10. Never pitch with a baseman out of position.
11. Cover home on a passed ball.
12. In fielding balls close to the home plate, follow directions from the catcher, who has the play in front of him.

for MAY, 1938



The Wisconsin-Purdue game at Madison, 1938.

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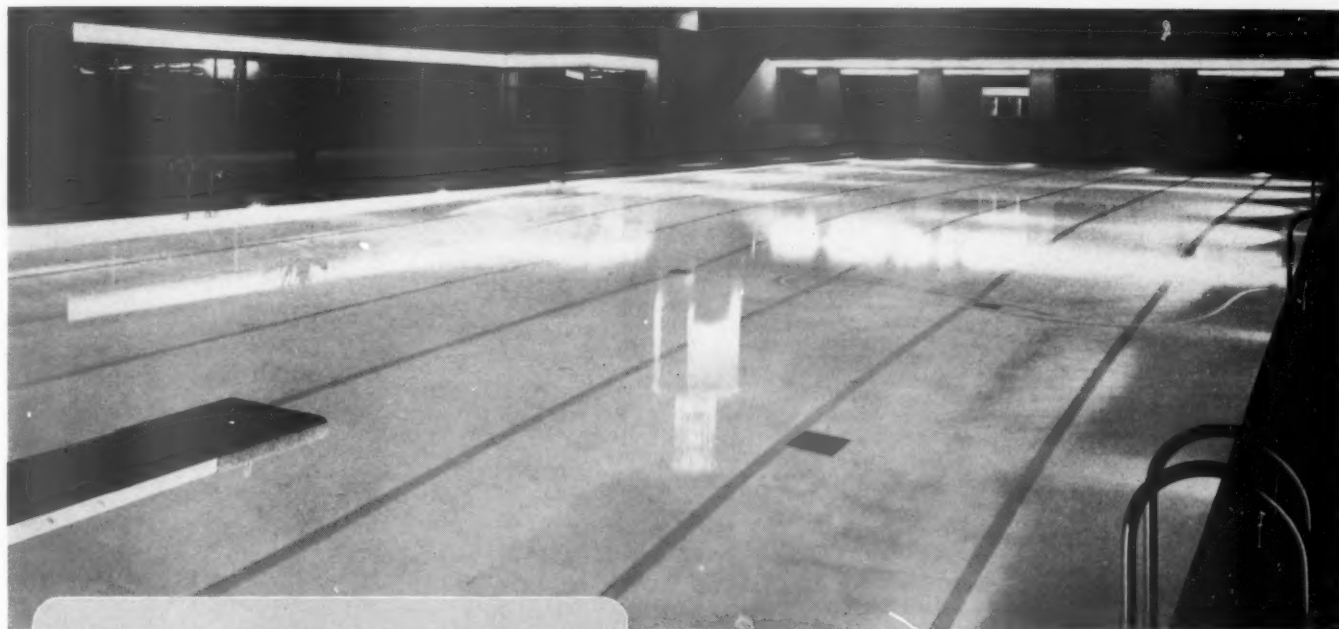
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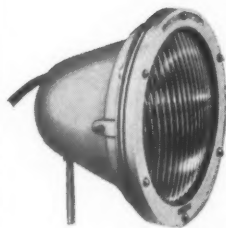


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